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# The Open Court.

A

WEEKLY JOURNAL,

Devoted to the Work of Conciliating  
Religion with Science.

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Vol. II. 2

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1888-89

CHICAGO:  
THE OPEN COURT PUBLISHING CO.  
1888-89.

59445

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# The Open Court.

A FORTNIGHTLY JOURNAL,

DEVOTED TO THE WORK OF CONCILIATING RELIGION WITH SCIENCE.

Entered at the Chicago Post-Office as Second-Class Matter.

OFFICE, 169-175 LA SALLE STREET.

No. 27. (Vol. II.—1.)

CHICAGO, MARCH 1, 1888.

{ Three Dollars per Year.  
1 Single Copies, 15 cts.

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## BODY AND MIND, OR, THE DATA OF MORAL PHYSIOLOGY.

BY FELIX L. OSWALD, M. D.

Part I.

### INTRODUCTION.

Among the nations of the East, tradition has preserved the memory of a flood so destructive that the present world hesitates to credit the record of its devastations. The time may come when our children will find it equally difficult to realize the horrors of the moral cataclysm which for nearly fifteen hundred years submerged the homes of the Caucasian race with a deluge of madness and superstition.

The highlands of science have emerged from that flood, but the foot-hills are still covered with the wrecks of a former civilization; the sediment of prejudice still attests the high-water marks of mental degeneration, and the present age can bear witness to the emotions of mingled doubt and delight at the appearance of an arc of promise in the form of a religion of science. The first gleam of that sunburst has long cheered the friends of light with the hope of an ultimate victory over the powers of darkness. For more than two hundred years the delusions of anti-naturalism and its utter inefficiency for the regeneration of mankind, have become more and more evident to all independent thinkers. They could not fail to perceive that the precepts of a world-despising Messiah were a fatal obstacle to the material progress of mankind. They could not ignore the fact that the systematic suppression of secular science had avenged itself by a far-gone marasmus of intellectual decrepitude. They could not ignore the evidences of physical degeneration, induced by the utter neglect of that health-culture that had for ages sustained the prestige of pagan civilization. The authority of Jesuitism rested almost entirely upon the alleged moral value of its tenets, a claim sadly at variance with the evidence of practical experience, but still tacitly accepted by a generation inculcated with the dogma of natural depravity. The apostles of science, however, have begun to question both the premises and the inference of that doctrine, and the last support of the mediæval delusion will hopelessly collapse as soon as a plurality of its victims shall realize the fact that the gospel of anti-naturalism is the most *immoral*, as well as the most mind-ennervating and health-blighting of all known supersti-

tions. The depreciation of physical education opened the door to effeminacy and all its concomitant vices. The suppression of healthier pastimes became a direct cause of intemperance and sexual aberrations. The encouragement of mendicancy and procrastination undermined the moral basis of industry. The doctrine of passive submission to injustice became a main-stay of despotism. The instinct of truth was crushed out by the dogma of salvation by unreasoning faith. The promptings of humanity were suppressed by the dogma of eternal punishment, and the alleged sinfulness of our natural affections. The instinct of justice was perverted by the dogma of predestination.

But the most fruitful cause of the moral degeneration that made the era of monasteries the darkest page in the history of mankind was, after all, the total neglect of physical science, especially of that branch of physiology which teaches the manifold

### INTERACTION OF BODY AND MIND.

The dualism of ancient moralists proved for centuries a root of baneful delusions. The Brahmins, the priests of Egypt, and many Gnostic philosophers, as well as the seers and prophets of Islam, considered the "soul" a mere guest of the body, a heterogeneous entity apt to survive the decay of its earthly tabernacle. They believed in the existence of a spirit-world extraneous to material creation and often neglected the revelations of nature in their effort to fathom the mysteries of ghost-land.

But the apostles of anti-naturalism went further. Their moral cosmogony makes the body the enemy of the soul and systematically contrasts the interests of earth and the "Kingdom of Heaven." In the language of asceticism the "world" and the "flesh" are synonyms of sin; the suppression of our natural instincts is persistently inculcated as a primary condition of salvation; the abasement of the body is distinctly enjoined as the best means of securing the promotion of spiritual welfare. The *anti-physical* principle of the New Testament is, indeed, the key to the enigma of the most monstrous aberrations of mediæval theology, and the keystone of a world-redeeming religion of science should be the truth that the highest moral and the highest physical welfare of mankind can be only conjointly attained.

The empirical knowledge of that fact has at last been bought at a price which the world cannot afford to pay



a second time. The unnatural restraint of convent-life resulted in such hideous nightmares of hysterical superstition that their memory still haunts the dreams of the Caucasian nation like the after-effect of a brain fever. The alcoholic excesses of the mediæval priesthood avenged themselves in a depth of intellectual abasement that made the name of a monk a by-word among the temperate nations of Islam. The inhuman oppression of the bondsmen enslaved by the system of clerical feudalism bore its fruit in the butcheries of the Peasants' War and the French Revolution, and ripens an aftermath in the doctrines of Anarchism and Nihilism. The moralists that ranted about the golden streets of the New Jerusalem permitted their own towns to reek with filth till the "immortal souls," as well as the despised bodies of their dupes were assailed by appalling epidemics—plagues, encouraging manias, dancing manias, contortion-fits and manias of suicide. For centuries the insane suppression of physical recreation on the day when a vast plurality of workingmen find their only chance of leisure has driven millions to drown their misery in the Lethe of intoxication, and thus, by the direct influence of fanatical anti-naturalism, produced the very evils which the exponents of that creed denounce as the result of natural depravity.

For the strictest followers of a Nature-hating Messiah, the pagan ideal of a "healthy mind in a healthy body," has, indeed, been perverted into the paragon of a world-renouncing soul in a crushed body; but even for the millions who modified that extreme of infatuation with some alloy of practical secularism, the imaginary antagonism of body and soul remained, and still remains, a source of baneful misconceptions. The science of the thousand fold *moral effects of physical causes* is still a sealed book to a large plurality of our fellow-men, and it is curiously characteristic of the anti-physical bias of their hereditary ethics, that at the same time they are ready, not only to admit, but to exaggerate, the *physical effects of moral causes*. A semi-conscious tendency of their mental constitution inclines them to emphasize the influence of the "immaterial soul" on the despised, earth-begotten body, and to deny, or ignore, the evidences of a reflex-influence. The revivalists of mediæval phantasms surfeit us with their accounts of miraculous cures effected by the "Christian faith" of the patient. Our mesmerian miracle-mongers expatiate upon the physical transformations induced by the mere volition of the *magnetiseur*. The metamorphoses of the Ovidian fairy-tales are rivaled by the portents of mediæval church-legends. At the mere prayer of an orthodox saint blind men regain their sight, cripples their lost limbs, beldames their lost youth; consumptives are resurrected from their beds of disease, and even corpses from their tombs. Thousands of scrofulous natives of mediæval England hoped to cure their ailments by the

benediction of the lawfully anointed sovereign, and a modern King of Spain endeavored to remedy the barrenness of his nuptial couch by embroidering a petticoat for an image of the Holy Virgin. Spanish strategists even attempted to compensate the inefficiency of their marines by baptizing their line-of-battle ships with fulsome-saintly names. The dogmatists of our Southern swamp-States still include protracted prayer-meetings among the specifics for the cure of climatic fevers, though in less fervid latitudes the therapeutic use of homilies seems to be limited to their substitution for the soporifics of the drug market. The sinfulness of free inquiry is still illustrated by numerous anecdotes commemorating the fate of unbelievers struck dumb in the act of abusing their organs of speech to the detriment of clerical interests.

The moral effects of physiological predispositions, on the other hand, are strangely underrated. Of a thousand splenetics who bemoan the vanity of earthly existence, perhaps not a dozen suspect that their pessimism could be cured by a slight change of diet. The carnivorous missionary who preaches the gospel of meekness to an assembly of Hindoo peasants, hardly dreams that the vegetarianism of his hearers more than compensates the lack of dogmatism. The pious father who hopes to protect his boys from worldly temptations by robbing them of their holiday sports, would be amazed to learn that his very asceticism is apt to increase the danger of secret vices, as naturally as the exclusion of fresh air increases the peril of dry-rot. The moral bias of race influences has hardly begun to be recognized in the theories of our international reformers; and men who would laugh at the idea of raising a young hyena for watch-dog purposes, nevertheless hope to cure the savage propensities of a young Hottentot by prayers and Sunday-school text-books. They would not waste their time in trying to gather figs from thorns, yet devote years to the attempt of appealing to the sentimental instincts of men who have been starved into chronic rancor, and who by ages of oppression and imposture have been taught to assume the defensive armor of universal mistrust. The moral influence of climate is an agency equally unknown to the moralists who preach continence on the Senegal and frugality on the banks of the Neva, and who berate the natives of the Arctic snow-wastes for their lack of Arcadian trust of the bounty of Providence. Nor has their philosophy ever recognized the intuitive contrasts of youth and old age. "After seeing his children and children's children," says the law of Menu, "a world-weary man shall retire to the peace of solitude, and devote the end of his life to contemplation and daily communion with the spirit of Brahma." But our spiritual task-masters attempt to enforce the instincts of decrepitude upon the mind of earth-loving youth; they darken the morning hours of life with the gloom of



night; the ministers of Quietism gather dead leaves to smother the budding flowers.

But the most neglected branch of moral physiology is certainly the study of the moral and mental effects of pathological tendencies. The contrasts of the psychic phenomena in health and disease have no place in the science of our moral philosophers; the traditional prejudice of dualism seems to shrink from the recognition of the striking analogies of moral and physical changes under the influence of abnormal conditions. The opponents of Monism are loath to admit that the functions of the "immortal soul" can be modified by sanitary arrangements, that its vigor declines with the vigor of the body, that many of its special faculties can be stimulated or annihilated by surgical operations; that every modification of physiological conditions is accompanied by a corresponding change in the disposition of the "immaterial spirit." The vice-begetting tendency of suppressed physical instincts is still obstinately ignored. The influence of abnormal habits on the vigor of volition, on the principles of self-respect, of benevolence, and even of integrity, are unknown factors in the diagnosis of our moral quacks.

Our entire system of moral education needs, indeed, a thorough revision, and the success of urgent social and ethical reforms depends on the radical reconstruction of moral philosophy on a basis of natural science.

#### THE IMPORTANCE OF THE LOWER COURTS.\*

BY JOSEPH W. ERRANT.

People of to-day are very much worried about the higher courts, although that system of courts in which the mass of the people meet the law and become acquainted with its practical administration are—to say the least—of no less significance. I dislike to use the term lower or lowest courts. To me one court is as important as another, and if any distinction is to be made, it should be in favor of those so-called lowest courts. It all depends from what standpoint we view the matter. The standard to-day is largely the money standard, and the importance of a court seems to be measured by the amount in dollars and cents over which the court has jurisdiction. If we could but realize that a claim for \$10 sometimes involves more of human justice than a claim for \$100,000 our views might possibly change. To-day questions concerning property and property rights occupy men's minds. When will they allow questions of right and justice to men and women to enter into their considerations? In the turmoil of a wonderful material development, we have thought too little of such questions. Only a month ago, in an address before the

Alabama State Bar Association, Judge Dillon gave statistics to show that nearly one-half of the modern reported cases involved corporation law.

It therefore becomes important to consider that system of courts, in which the people gain their impressions of justice practically applied.

Let us then consider the justice of the peace system of courts. In Chicago we have also a system of police courts, in which are heard cases brought in by the police. Cases involving violations of local ordinances are heard in these courts. Justices of the peace are usually elective officers. In Chicago we have a round-about method by which the judges of the courts of record recommend names to the Governor, and the Governor by and with the advice and consent of the Senate appoints. Certain justices named by the Mayor and approved by the common council are appointed to preside in the police courts. For the services there rendered the city pays them a regular salary. They do not, however, devote themselves exclusively to the police courts. They carry on their private justice of the peace business besides.

The law does not require a justice of the peace to possess any special qualifications for the position, nor is it necessary that he should be a man who is versed in the law. If he has any qualifications, or if he is a lawyer, this is simply accidental. Indeed, in the eyes of the profession a lawyer who accepts the office of justice of the peace is considered to have lowered himself. This sentiment is not at all creditable to the profession, for by it men who would honor it are prevented from accepting the office. In fact, such a feeling toward the position of a justice of the peace is an injustice to those men who accept these positions and endeavor to do their duty conscientiously. If things do not go right, it is often because the system makes them its unwilling victims.

As soon as the justice has received his commission, he rents and furnishes a room, hires a clerk, hangs out his sign and announces himself as ready for business. If he is his own successor or if he can rent the room of his predecessor in office he is spared some of the preliminary work. He must pay all his expenses and make a living besides. He has no fixed income. He is absolutely dependent upon his fees. It is hard to imagine a system better calculated to destroy every idea of judicial dignity or independence.

A system is wrong which allows Blank, Brown and Jones to enter into a scramble for a judicial office, in which scramble it is often merely a question of political influence as to who obtains the office. A system which compels a man to work to obtain a judicial position and to work to retain it is wrong. There is a fierce strife for the position of justice of the peace in Chicago. Every manner of influence is used to retain positions or to crowd out present incumbents. Such a system induces

\*The above essay is an abstract of an address entitled "Justice for the Friendless and the Poor," which was delivered before the Illinois State Bar Association, January 11th and before the Society of Ethical Culture at Chicago, January 20th, 1888. As a result of the above mentioned address a movement has been started and is already well under way to organize a bureau of justice in Chicago. As soon as possible an office will be opened in which "the Friendless and the Poor" will gratuitously be advised and helped to obtain justice.



schemes and combinations which are demoralizing to any judicial system. A system of courts in which the services of the judges are paid for by the fees which they receive is wrong. The astounding spectacle is presented of a judge asking for patronage. Some of the justices have a large patronage—others have a small patronage. There is a direct inducement offered to men to attempt to obtain business in some way or other. Influences are used and promises are made. Every favor done him places the justice under obligations to some one.

It has occurred to me that we might adopt the idea of the "district courts" of New York City. The jurisdiction could be raised above that of the present justice of the peace courts and could be extended in other directions. In this way the circuit and superior courts could be relieved. The judicial tribunals of this State will never possess the dignity or command the confidence which they should until all our judges are appointed during good behavior. There should be a chance for a judicial career just as there is for any other. But whatever plan may be adopted, remember that that system of so-called lower courts is just as important as any other. Place there men of wide knowledge, human sympathy and special training. Upon the respect felt toward the so-called lower courts depends the respect felt toward the whole judicial structure.

With an improved system of courts must come a different order of officials to do the work of those courts. The present constable system is a disgracefully irresponsible system. Nominated at the end of the proceedings of a town convention, when most of the delegates have gone home, almost any one can have his name placed upon the ticket. Very few know or care to know who the men are. I should be in favor of electing a chief constable. I should hold him responsible and allow him to appoint his assistants. Either this, or I should be in favor of enlarging the sheriff's duties.

But there are other questions to be considered. Let us, for instance, suppose the case of a poor girl who has been discharged from employment by a man who has not paid her wages for several weeks. He feels that the poor girl will not be able to compel him to pay and he can pocket the wages. There are men who underbid competitors in business, employ help and think to make up the difference in this way. There are dressmakers who employ girls for a number of weeks, and then send them away, refusing to pay wages on the ground that the girls' work was poor. There are fashionably-dressed ladies who do not pay a poor dressmaker, and the poor dressmaker cannot spend the time which must be devoted to her work in collecting or suing for her hard-earned money. But let us return to the case of our poor girl. She goes to see the man several times, but he refuses to pay. In some way or

other she finds her way to the office of a justice of the peace. She enters a room. The justice may be at leisure or he may be occupied in the trial of a suit. She is not helped either way. There are other men in the room, a clerk, constables, so-called attorneys, etc. She speaks to one of them; he may be the justice, the clerk, a constable, or one of the numerous "shysters" who hang about every justice's court-room. It is all a matter of accident. She tells her story. She has no money. The justice may enter her suit without fee; he may not. She does not know where to obtain two dollars. She goes away discouraged. She may have fallen into the hands of some shark, who agrees to begin suit for her, because he has an agreement with the justice by virtue of which the justice only receives a fee in case he gives judgment for the plaintiff. Suppose she obtains judgment. The execution is placed in the hands of a constable who may collect the money, or he may be paid by the defendant to wait. At last the money is collected. The so-called attorney retains almost all for his services. The remainder is handed over to her. Sick at heart on contemplating the result of all her trouble, she resolves never to enter a court-room again. She cannot understand the ways of justice. She had an idea that all that was necessary was to tell the judge and he would soon have the money for her. But she found out that she had to come several times, that she had to wait for an hour or two about the court-room, that she had to wait twenty days after judgment was entered before an execution could be issued; that she had to wait many weeks before the money was collected, and at last when it comes to her it is a third or fourth of the original amount. Or suppose the employer appeals, and thus postpones action for a year or more, as in Chicago, what is she to do? While all this has been going on she has fallen behind in her rent. She may have found a new situation at once. Perhaps she has not. If the employer had paid the wages due her she could have lived thereon several weeks. Now she is compelled to seek charity or worse. Suppose the employer sees fit to fight the case. He engages an attorney, who endeavors to secure numerous continuances in order to weary the plaintiff. If she is alone, she soon succumbs. If she has an attorney, she may be pressed by him to settle, for he feels that there is very little money in the case for him; he wants what he can get now; he does not wish to see the case appealed.

This is no fancy picture. I could go on and give you case after case; in which men and women have the same or similar experiences, in their search for justice. Hundreds, perhaps thousands, of people have heard of the experiences of others and carry their wrongs in their breasts, believing that they cannot obtain justice. They have lost confidence in the law and its administration and will not even attempt to secure justice. The case



above detailed is a case involving a small claim. I have shown you what the collection of such a claim means to the poor and friendless. There may be cases involving property, reputation or grievous wrong. To ask people to engage an attorney or pay costs when they have no money, to ask them to follow up a case by themselves when they have not the slightest idea as to what they shall do or where they shall go, to allow them in their search for justice to fall into the hands of the unscrupulous, when it can be prevented—all this is a practical denial of justice. To tell people that a case has been continued or appealed without any further explanation, when they never heard the words used in that way, is a farce, and yet that is all the satisfaction people sometimes obtain. They do not like to ask many questions. They are rather timid in a court-room. They go away without understanding what is to be done. Many people are fearful and nervous about entering a court-room. They have heard of lawyers' cross-examinations and other things and, rather than submit themselves to such treatment, they forego a right or suffer a wrong.

As to the higher civil courts, they are almost an unknown land to the poor and friendless. Appealed cases they are compelled to abandon. Suits within the jurisdiction of the higher courts, they have no means to bring. Now and then a damage suit brought by some poor person on an agreement with an attorney for one-half or one-third of the proceeds finds its way into our higher courts. Unless they are entered on such terms, the higher courts are practically closed to the poor and the friendless.

The justices of the peace in their capacity of examining magistrates have many criminal cases brought before them. I shall not have time to consider that branch of the subject, nor is it necessary. Let us suppose the case of a poor man whose house has been entered, and whose hard-earned savings have been stolen. He finds his way to a police station and makes complaint. A warrant is issued, the guilty parties arrested and brought into court. A day is set for the hearing; the complaining witness is told to come with his witnesses; he comes, but on some point or other the hearing is continued. Again he comes; again the case is continued. Finally the hearing takes place, and the defendant is bound over to the grand jury. After some time the complaining witness is notified to appear before the grand jury. He has already lost many days' wages, and his witnesses begin to object. Perhaps he has been paying them the wages which they were compelled to lose through absence. Perhaps he himself, or some one of his witnesses, has lost a situation through absence. It may be that he gives up the case at this point. We will suppose that he goes on. He and his witnesses appear, the case will not be heard to-day but to-morrow. Again they come. The accused is indicted. Some

weeks pass and then the poor wage-worker is notified that the trial is to take place on such a day. He appears with his witnesses and has to wait until the case is called for trial. He may have to wait for several days. At last the trial is over. The wrong-doer has paid the penalty. The law has been vindicated, but at what cost to the wage-worker who can ill afford to lose a single day's wages.

The poor and friendless defendant who is brought into the police court with the strong hand of the policeman upon him and with no friend or attorney at his side is in a sad plight indeed. He is usually hurried off to the bridewell or the jail. It is simply astounding to think of the injustice which is being done under the system of to-day. The last grand jury in Cook county reported thirty-nine true bills and seventy-four no bills. A large number of the persons covered by the seventy-four no bills had probably been spending a month or two in the jail awaiting the action of the grand jury.

The highest reform idea of the average police official of to-day is to arrest a person and place him behind the bars. This is his panacea. I could tell you of cases in which police officials have been astonished that any other course should be suggested. All their investigations are conducted with an eye to the accomplishment of their purpose. As a general thing, such investigation is the only guide the justice has, and hence he becomes the victim of the present methods. The police officials must be taught differently. Our police officers, and certainly the higher officials, should be selected with a special eye to their fitness, their judgment, their powers of discrimination; with such men to support him, the examining judge could better perform his duties.

In the good old days of the New England colony the people were accustomed to come together and consult about the public welfare. Their affairs were of a most simple character, and Smith and Brown and Jones could easily attend to the duties assigned to them without neglecting their own business. A century and more has passed away, and the town-meeting idea of government still survives. Brown, Smith and Jones are still deemed capable of stepping from their various pursuits into positions requiring adaptation and training. It is time for us to realize that such a state of things cannot continue. The methods adapted to the wants of the New England village will not answer for the populous cities and States of to-day. At the suggestion of civil service reform the American citizen sees before him the picture of an aristocracy of office-holders. I believe in civil service reform from the bottom to the top. It is the survival of antiquated methods of providing ourselves with public officers which has raised about us tyrannies more damnable than any which can possibly come from the establishment of our public offices on a different basis. I refer to that curse of our day—polit-



ical influence. The system of to-day, with its many elective offices and short terms of service, tempts men in public position to conciliate this interest or that, to beware of offending this man or that, to listen to the commands of this political leader or that. Men cannot call their souls their own. This political influence meets you everywhere. It makes the wheels of justice go fast or slow, or not at all. It opens doors as by magic, or keeps them closed. It sits with the prosecutor in the court-room or visits him in his private office. It commands the judge on the bench. When will the American people do away with the system which has cursed us too long? You, who are on the outside, sometimes wonder at this or that failure of justice, at this or that persecution. These things are brought about by influence. You yourselves are equally responsible with the men who are using the system for their own purposes. It is your privilege to reject or retain it. The poor and the friendless have no influence.

Do not believe that it is simply a question of the poor and the friendless against the rich and the influential. It is also a question of the poor and the friendless against the wicked, the cunning, the dishonest and the unscrupulous, not in one class, but all through the social structure.

It is then necessary for those who would stand for justice to stand for it against injustice, wherever it may be found. They should feel with Theodore Parker:

"Give me the power to labor for mankind,  
Make me the mouth of such as cannot speak;  
Eyes let me be, to groping men and blind,  
A conscience to the base, and to the weak  
Let me be hands and feet; and to the foolish, mind.

Who will take up the work of creating conditions by which the poor and friendless will be able to contend on equal terms with those who have wronged them? These matters must not be left to chance. It is dangerous to do so. It must be the business of some one to see that these things are done.

The State is now giving its money and protection to institutions which pretend to cure existing maladies. The day will come when it will prefer to give its support to those causes which endeavor to prevent diseased conditions.

## THE COPE-MONTGOMERY DISCUSSION.

### I.—THE THEISM OF EVOLUTION.

BY E. D. COPE.

The following is offered as a synopsis of the leading opinions maintained by the writer in a series of articles furnished by him to THE OPEN COURT during 1887, in reply to articles written by Dr. Edmund Montgomery.

#### I. PRINCIPIA.

1. In the universe there exist both mind and matter, subject and object.

2. The evidence for the existence of mind is found in consciousness; first, of ourselves, and second, of other living beings, whose motions, identical with those which we make under the influence of our own consciousness, convince us of their possession of it.

3. The evidence for the existence of matter is found in certain modifications experienced by our consciousness, especially in the sensations of extension and resistance.

4. Since consciousness does not exist apart from the motion of matter, we regard it as a property of the matter in motion, that is, as a property of energy.

#### II. FACTA.

1. The gross activity of consciousness is immediately conditioned by matter.

2. In certain of its thought-forms consciousness is not immediately conditioned by matter, but only by its past experience of matter.

3. The forms of consciousness mentioned under (2) control the direction of energy, and hence the use of matter.

4. The proof of (3) is seen in the designed movements of animals in which they direct a current of energy in order to produce a result more or less exactly adapted to satisfy the conditions demanded by a sensation.

5. As soon as a designed movement has been fully acquired, that is, so soon as the animal mechanism necessary for its production has been created, it is performed without consciousness of effort, and may be performed unconsciously, or even in a state of general unconsciousness. Therefore designed automatic acts originated in consciousness.

6. Evolution of organic types is the resultant of the interaction of subject and object, or the living organism and its environments.

7. The function of the organism *in evolution* is to produce variations in its structure as an effect of its motions.

8. The function of the environment in evolution is to destroy the organism, or to restrain, permit or encourage its use; that is, to exercise natural selection.

9. The effect of this interaction, where the movements of the organism are stimulated, is to produce specialized structures and types out of generalized ones. Where the action of the organism is not stimulated, the result is to produce degenerate types.

10. It follows that organic evolution is the result, mediate or immediate, of consciousness; that is, of the interaction of conscious energy or its residua, the organic vital energies, in interaction with the environment.

11. Organic energies perform chemical syntheses and analyses, demonstrating the control of vital over chemical energy.

12. Whereas physical and chemical energies dis-



play only as results dissipation of energy and integration of matter, the energy of evolution displays complication of matter for the profitable direction and storage of energy.

### III. CONCLUSIONS.

1. The function of control and construction displayed by the energy of evolution (hathmism) leads us to infer that this type of energy can control its conditions sufficiently to enable it to have a wide distribution in space and time in the universe.

2. Since the originating and controlling element of this *special* type of energy is consciousness, it is inferred that consciousness has existed prior to any given *special* inorganic type of energy.

3. As the condition of consciousness is the unspecialized or uncreated condition of energy, it is inferred that consciousness is a property of matter in an unspecialized or generalized condition in some respect.

4. Since protoplasm is not in all respects the most generalized conceivable condition of matter, it is inferred that there are physical bases of consciousness other than protoplasm.

5. It is inferred from the preceding considerations that the existence of primitive consciousness in primitive forms of matter is not only possible but probable, and this consciousness constitutes a primitive person or Deity.

### II.—EPITOME OF MY CRITICISM OF PROFESSOR COPE'S THEOLOGY OF EVOLUTION.

BY EDMUND MONTGOMERY

I will endeavor to comply with the request of the president and the editor to give the gist of my controversy with Professor Cope in about a column.

Professor Cope maintains that mind is the active agent in the organization of living beings. I maintain, on the contrary, that the mind of living beings is itself only a product or outcome of their organization.

Professor Cope's view leads him to assume as original building-material an entirely "unspecialized" kind of matter, and as builder or organizer a supreme mind or Deity inherent in such matter.

In this connection I had to point out the great dilemma of modern philosophy; the impossibility, namely, of conceiving anything mental imparting motion or direction to anything material. Leading thinkers of almost every school, when seriously contemplating the apparent occurrence of an intercommunication between mind and matter, have declared it scientifically impossible and philosophically inconceivable. Yet, Professor Cope's entire theory of organization through mental agency rests on the flat assertion of its being a self-evident proposition, that our mind moves our body.

I further pointed out that to escape from this distracting dilemma of having on the one side a mind incapable of *naturally* acting upon matter, and on the other side

matter incapable of *naturally* acting upon mind—that to escape this dead-lock in the way of a unitary or monistic conception of nature, a theory of cognition is indispensable.

By help of such a theory we become irrefragably aware that matter and motion are only perceptual signs within our own consciousness of the presence of a non-mental existent and its activity, which are stimulating our senses in specific ways. We can be certain that what thus affects our senses is really *non-mental* in its nature; for nothing mental has power to affect our senses and to awaken specific percepts in us. This non-mental existent and its activity cannot possibly, in the remotest degree, resemble their perceptual representation in us; for how can anything non-mental resemble anything mental? Therefore, they are not in themselves what we perceptually know as matter and motion. And thus the conception of mind moving matter becomes at once irrelevant. The dualistic opposition of matter and mind is seen to be superficial, and only due to inadequate conception on our part.

These truths, yielded by the theory of cognition, I have used to explain our voluntary movements, upon which movements the entire question of the influence of our "mind" on our body actually centers.

Our veritable being has power so to affect the sensibility of an observer as to arouse its perceptual representation in him. This perception of the observer, in all its details, forms clearly part of his own consciousness; but it representatively corresponds to the characteristics of the non-mental existent, which is stimulating his senses.

Now, it is evidently the *transient activity or function* of that part of the *permanent living being* which we perceive as his nerve-system that yields to him all his conscious states.

While this functional play of inner awareness is taking place in the observed organism, the observer himself perceives nothing but motion; motion of molecules in the nerve-system, and dependent movements of peripheral parts of the organism, such as features and limbs.

"Mind" or consciousness is thus a functional outcome of the organization of living beings, and its development is found to keep strict pace with the progressive organization of living forms.

### NOTE.

The only comment which I have to make on Dr. Montgomery's argument is this: That while denying that consciousness can control energy (matter), he admits that matter controls consciousness. These two positions are logically inconsistent. If the affirmative is true of consciousness it is true of matter, and *vice versa*. On other points I can agree fully with Dr. Montgomery.

E. D. COPE.



## NATIONAL TAXATION.

BY AN ANTI-MONOPOLIST.

The United States of America is a free and independent country, where the State does not mean anything outside of or superior to the citizens forming the same, but a mere compact of the latter for their mutual protection in the full and unabridged enjoyment of all their natural, inherent and inalienable rights. In such a country, where the people govern themselves by laws and principles adopted by them, and where all the public officers of the legislative, executive and judicial branches of the government are not rulers but servants of the people, public life should be as pure as private life, public affairs should be conducted as truthfully as private affairs, and politics should be strictly moral.

With the sanction of our American Constitution, the United States was afflicted with the institution of negro slavery, up to our late civil war, caused by it, but in return causing the abolition of that fiendish institution in this free country. Utterly incongruous with justice, liberty and humanity, negro slavery, while it existed in the United States, was in reality or practically a monopoly in favor of the slave-holders and at the expense of the slaves. A monopoly means an unjust privilege of a monetary character for the benefit of some men and at the expense of others. The former slave-holders of this country had the right to buy and sell their slaves as chattels and not to pay them any wages for their work; while the former slaves of this country were deprived of liberty, of the right of property on their own persons, of the right of receiving wages for their labor, of the right of being educated, and of the right of founding homes and families. Our American civil war has clearly shown what ruinous things monopolies are to a free country.

The United States is now afflicted with monopolies based upon and being fostered by our American *protective tariff*. By such a tariff duties are meant, our national government levies on foreign imported goods, not only for its own support and for the payment of our public debt, but also for the so-called protection of our American industry, chiefly of the mechanic and manufacturing kind. Such a tariff, enhancing the prices of foreign imported goods, enables American producers and manufacturers to sell their own goods of the same sort dearer than they could do otherwise, and compels the people generally to pay higher prices for such goods, foreign or domestic, than they would have to pay for them without such a tariff. Under the fundamental laws of this country, the Declaration of Independence and the Constitution of the United States, our national government has no business to lend its hand to such a trick, profitable to certain classes of men, but detrimental to the American people as a whole. In fact, under the fundamental laws referred to, our national govern-

ment has no right to raise revenue for any other purpose than for its own support and for meeting its legitimate obligations.

American mechanic and manufacturing industry, by the good qualities and cheap prices of its products, should protect itself, both at home and abroad, against the competition of foreign industry. The American people, what they need of manufactured goods, should, by all means, produce themselves, as far as the natural resources of this country enable them to do so. There are heads and hands enough in the United States for such a purpose. Both self-respect and economy should cause the people of this country, financially, industrially and commercially to emancipate themselves from Europe and the rest of the globe as soon as possible.

American mechanic and manufacturing industry should have for its products not only a home market, but as extensive as possible a market in foreign countries, too, just as our American agriculture has it for its products. Thus, useful employment would be permanently given to a great many men in this country. But this is prevented, at present, by our protective tariff, rendering American goods too dear for consumers abroad.

Commerce is a cosmopolitan institution, and nations, like the American people, obstructing its paths to their own fabrics by too high prices of the same, hurt themselves in their material welfare. Are the artisans and mechanics among the American people less intelligent, less ingenious, or less industrious than those of other nations? Not at all! Cheaper prices of American manufactured goods and a larger and readier sale of the same, both at home and abroad, could and would only favorably affect the prosperity of this country.

A protective tariff should protect the home industry of this country by enhancing the prices of domestic goods and thus the wages of wage-earners, and by lessening or preventing the importation of foreign manufactured goods, which have also to bear the cost of transportation to this country. Yet, such a tariff merely benefits the proprietors of factories, and not their so-called workingmen, too. By the bye, in a free country there should be only workingmen and not drones of society, because useful employment, not idleness, is life's real problem. Useful work, however, does not exclude the social enjoyment of life, by amusement or recreation, at the proper time.

Those proprietors of factories by no means equally, in a co-operative manner, share their profits with their operatives. They, as a rule, pay the latter what they please or see fit, and no law of arbitration can compel them to pursue another course in this respect. In the hands of those proprietors, by a protective tariff, capital unjustly accumulates, rendering them monopolists, and at the same time unduly laying the fate of their laborers into their hands. Favoring the few at the expense



of the many, a protective tariff will never be in harmony with the free institutions of this country. It opposes the cardinal principle of our American freedom, laid down in the Declaration of Independence, namely, the principle of equal rights for all in all matters of public concern, that is, matters affected or to be affected by law. A protective tariff, producing affluence among the manufacturers and pauperism among their workmen, separates, *by law*, the people of this country into rich and poor, capitalists and laborers, as *classes*, and thus practically creates a class distinction. Under its operation, the social life and the social education of this country will never be what they should be. It is true, however, that no so-called laborer or workman of this country should consider himself a hired man for life. Every one of them should unceasingly try, by energy, industry, and circumspection, to become independent in business and his own boss, even if he do not succeed. Farming, for supporting a man more directly than any other kind of work, is doubtless the most natural and most satisfactory of all human employments. For this reason, the farmers of this country are the most contented and most independent men among the American people.

There is no sense or truth in large, overcrowded cities of this country, with its yet thinly settled territory, taken as a whole. Such cities represent wealth very unequally distributed, but not necessarily education, money being only a means of civilization, and not civilization itself. They promote the progress of science and of useful arts to a certain extent, but they are also hotbeds of crime and vice. The capital, by unfair and unjust national legislation, in the shape of a protective tariff, amassed and amassing in such places, induces poor people to flock there from less favored localities in pursuit of their happiness, which they, with few exceptions, can and will not find in those cities. Is this a worthy aim of the political economy of this free country?

A protective tariff, for enhancing the prices of foreign and domestic goods, renders the hard-earned money of the masses of the American people cheap. But dear money, purchasing a large quantity, not cheap money, purchasing only a small quantity of goods for the same sum, should be the leading principle of the political economy of this country. It most benefits the masses of the people. An over-coat keeps a man just as warm if it costs only ten dollars, instead of twenty dollars, that is, the same over-coat,—and an orange, that is, the same orange, tastes just as good if it costs only one cent, instead of two cents. The ratio of the purchasing power of money and of the selling power of goods is an inverted one: if money is dear, goods are cheap; if goods are dear, money is cheap. The real value of money consists in its circulation for legitimate business purposes. The observance of the principle of dear money,

just stated, could and would not prevent at all the American people from becoming possessed of as much gold and silver coin, or, in other words, real money, as possible; a state of affairs which is, of course, very desirable for this country. When our national debt will be finally paid, the United States notes (greenbacks), for forming a portion of the same, and the national bank notes, for being secured by government bonds, will disappear. In their stead, the American people should have an ample amount of paper currency, consisting of gold and silver certificates, based upon deposits made by the people with the government of gold and silver coin, and being redeemable in their respective coin at any time.

In this connection a few remarks may be ventured on the silver question. The American silver dollar, as to its bullion value, is at present greatly depreciated, in comparison with our American gold dollar. For this reason gold coin does not circulate so freely in this country as silver coin, the people, when making payments, always selecting the intrinsically less valuable coin of the two, to do so. Congress, therefore, should make the bullion value of silver dollars, to be coined in the mints of the United States, as nearly equal to that of gold dollars as this, in consideration of the fluctuating price of silver, can be done. Gold, as the more valuable of the two metals named, is the standard money of the leading civilized nations of the globe, our own American nation included, both at home and in their commercial intercourse with each other. It, therefore, would be an easy thing for the nations referred to to unite upon a common or equal ratio between the value of gold and silver. Yet, it appears that they are not willing to do so. Money being power, nations are as zealous and jealous in money matters as private individuals. The American people, therefore, are compelled to find an expedient of their own for coining silver dollars in bullion value as nearly equal as possible to gold dollars. How would the following suggestion do in this respect? Let the present compulsory coinage of silver dollars by our national government be stopped forever. Let, in the same manner as we have free coinage of gold, also free coinage of silver be established at our American mints, enabling private parties, defraying the necessary expenses, to have as much silver coined there as they choose. Let Congress annually, according to the current price of silver, equalize the bullion value of the silver dollars, to be coined in our American mints, during the fiscal year following, with that of the gold dollar. Let annually, provided it become necessary annually, a change be decreed by Congress in the coinage of the silver dollar as to its bullion value, whenever the same should have become less or more valuable by three per cent. than the gold dollar. As to ascertaining the current price of silver, it may be stated



that the United States Treasury Department daily receives a cable dispatch from London, England, by which it is informed of the price of silver there, which is considered as the standard for the current price of this metal in this country. The government would, of course, have to receive all depreciated silver dollars presented to it in payment of public dues. Yet, it should make all its own silver payments in the correct silver dollars described, of the latest coinage, as far as it might have them on hand, and it should gradually recoin depreciated silver dollars formerly coined into silver dollars having the latest bullion value decreed by Congress. Silver dollars overvaluable, as stated above, as to their bullion contents, whenever there should be any such in its possession, should also be recoined by the government into correct silver dollars. The correct silver dollars described might, to a certain extent, also go to foreign countries. Free coinage of the same would, of course, not prevent at least as many of them being coined at our American mints as depreciated standard silver dollars, under compulsory coinage, are being coined there now. Such an independent, although very tedious financial policy, firmly adhered to by the American people, might, in the course of time, force the European nations to make the desirable agreement, relating to the silver question, they now decline to make voluntarily.

The bulk of the revenue of our national government is derived at present from duties levied on foreign imported goods (customs), and from taxes levied on domestic articles; namely, on tobacco, prepared for use, and on alcoholic beverages (beer and whisky) produced in the United States (internal revenue). Strangely, and not in harmony with our American principle of equal rights for all, in all matters of public concern, the internal revenue is derived only from those so-called luxuries and not from other products of this country. Yet, to succeed in their business, the producers in the United States of the luxuries referred to must be as industrious as the producers of necessities of life. Besides, as free men, they are entitled to exactly the same immunities as all their American fellow-citizens. Justice, therefore, forbids their productions to be taxed and others not. Whisky not subject to taxation would not mean free or gratuitous whisky, because the consumer would have to pay for it also when not taxed to the producer, although a lower price. In reality, neither of the two sorts of luxuries named—tobacco and alcoholic beverages—seems to be worth a high price.

From the foregoing discussion it is to be seen that neither the customs system nor the internal revenue system of our national taxation is very practical or rests upon a sound and rational foundation.

*(To be continued.)*

Poetry is more earnest and more philosophical than history.—*Aristotle.*

## UNDERSTANDING ONE'S NEIGHBOR.

BY XENOS CLARK.

If the proper study of mankind is man, then, as the nearest man, one's neighbor naturally suggests himself as an object of examination and reflection in spare moments. People ordinarily imagine they know their neighbors pretty well, but this is apt to be an illusion; a neighbor, in fact, is generally an uncomprehended entity; even his hat is different from our hat, and how much more that complex garment, his mind. To understand this mind as it is in itself, though a difficult matter, is, of course, what we all should attempt, instead of thinking it a mere dumb appendage of our own lives. If, for instance, our neighbor is commonplace, instead of contemning him it may be better to ask why he became so, and whether he suspects it, and what effect the suspicion has on his mind. Is he, for instance, a young man weakly aware that Nature has clothed him with inferiority, and does he walk through life with persistent, half-foolish consciousness of being at the foot of the class? For one to comprehend such a life, not from one's own standpoint, but from the possessor's, is to feel a nameless, mother-like pity for the victim.

Or perhaps this neighbor is commonplace in the conceited way, which thinks it knows everything because it knows nothing. To argue such a neighbor out of a misconception is like getting a pig to market, and so the pig gets anathematized. This, however, is not comprehending the pig; and if one ceases anathema and turns to comprehension, it will be seen that the pig thinks he is right and cannot help what he does. Perhaps after all the best way with an ignorantly disputatious person is to humor him in his conceit. Let him have his pleasure; accept his opinions; confirm them by unsuspected instances; poor, conceited fellow! you are the first person who ever agreed with him; he will blossom like a rose with delight, and will greet you with a smile for months afterwards.

To a man with theological leanings his neighbor's creed is always a matter of interest, but this, too, is likely to be viewed in an external and uncomprehending way; and what is asked is not, Why does he have his creed? but, Why does n't he have mine? This is to forget that our neighbor is an independent being with a mind and heart of his own; with an inner history of which we know little; and with perhaps a whole range of feelings inscrutable to our experience. Here, for instance, is Mr. Matthew Arnold, one of the most rational of neighbors; and yet he exasperates his American readers by advocating the retention of the Church of England, and even its retention as a state church. By an effort at comprehension, however, it is revealed that what impresses Mr. Arnold is the inestimable role his English state church has played in fostering a cultivated life among the clergy and the people; and this role no one can go to England



or to English literature without observing. It is as much a part of the country as the soft greenness of the landscape, or the impressive prevalence of well-established amenities in family life. Moreover, Mr. Arnold knows that the Church of England is a very elastic institution with a power of progressive growth; and he humors it as one humors a good man of great influence but partly mistaken opinions, in order not to lose the influence of this good man, and with the hope that his opinions will gradually change for the better.

If our neighbor is a commonplace man, his creed, of course, is commonplace. Yet in its poor old way how much it may help him, who perhaps would fare but poorly on our rational diet. Our commonplace neighbor knows little of Truth with a capital T, although he will give reasons for his creed if you drive him to it, as a hen takes to water in extremity, and will even refuse to give up a single one of its particulars. But we shall be more commonplace than he if we suppose that he really prays to God when he goes to bed every night for these reasons. On the contrary, this creed is simply his because it was his father's, or because his wife taught it to him, or because when a young man some "experience meeting" changed him from a careless youth to a serious believer. And since that time he has taken his bath every Sunday morning, and then gone to church with his wife and children, and it makes him feel right and good; and so he believes his creed must be right and good, too.

Quite a different person is our opinionate neighbor, though he too will repay an unselfish effort to comprehend him. An early result of this effort is the perception that it is foolish and useless to argue with him, is time thrown away for no result save exasperation on both sides. Though a man perhaps of excellent character, yet he is to be pitied. All the graces of intellectual modesty and self-doubt are lost to him; all the openings for intellectual growth are closed; the happiness of giving up an erroneous opinion, the joy of receiving a gift-thought from another he never can know. The mind of this opinionate neighbor resembles a bin full of crooked sticks; intellectual conversation for him consists in exhibiting to you these sticks one by one and insisting on their straightness. Instead of uselessly doubting him, which will bring on a fight, hammer and tongs, it is better to change the subject happily; in fact there is no pleasure like the discovery, so frequently possible, that inside the crooked fence of his "views" our opinionate neighbor has a mellow and blooming plot of ground, a kind heart. And if he has not, then of course it is all the more pitiful, especially in relation to his family; for to his wife, to his brother, to his children, the obstinately opinionate man is a sorry trial indeed. He resembles a crooked gun; the only way any one can obtain what any one wishes from him is by aiming away from the

mark. Thus, after all, his most surprising trait is his blindness, for he goes through life compelling every one to deceive him and play upon his vanity, and yet without once suspecting it.

Beyond question the greatest good a man can derive from an unselfish effort to comprehend his neighbor, a commonplace or opinionate one, for instance, is the discovery, sure to come about, that he himself in some particular is commonplace or opinionate also. This is a bitter thought, but proves tonic when swallowed frankly. The old felicity with which one contemplated his neighbor's shortcomings is now suddenly clouded by the reflection that if the neighbor is so calmly unsuspecting of his faults, such may also be the case with one's self. Though disillusioning, to any one with a sense of humor this experience is amusing too; and, what is more, it marks progress in character. Another effect of the attempt to see a neighbor's life inwardly is a sudden realization of what a blundering and misconceiving world this is; for it now occurs to us, like a revelation, that our neighbor possibly suffers the same pains of miscomprehension that have been bitter to our own heart. We have been thought surly when we were simply ill, or proud when simply hiding trouble, or unfaithful when driven by a hidden necessity; so, too, may it be with our neighbor as we have falsely seen him. A man on realizing this thought feels a sudden swelling of his heart toward his neighbor. Dear neighbor, he says, how blind I have been to your real life; I have not thought of you as if you were a human being at all. I have been wrapt up in the narrowness of my own mind, and only just now have I discovered it.

Perhaps this thought is the beginning of a new and more comprehending life—a life in which all humanity is seen as one's neighbor.

#### A CREED.

BY CLIFFORD LAMONT SNOWDEN.

Hold Honor with thyself, nor fear  
That thou shalt others wrong;  
Hold Honor with thyself and feel  
That thou, the weak, art strong.

Hold Honor with thyself and know  
Man will behold in thee  
A *DAIMON* prompting all thy deeds,  
A power just and free.

Hold Honor with thyself and learn  
Men bound with Right are strong;  
Right bound with Right in motive pure  
Conquers a world of wrong.



# The Open Court.

A FORTNIGHTLY JOURNAL.

Published every other Thursday at 169 to 175 La Salle Street, (Nixon Building,) corner Monroe Street, by

THE OPEN COURT PUBLISHING COMPANY.

EDWARD C. HEGELER, . . . . . PRESIDENT.

DR. PAUL CARUS, . . . . . EDITOR AND MANAGER.

*This Journal is devoted to the work of conciliating Religion with Science. The founder and editor have found this conciliation in Monism, to present and defend which will be the main object of THE OPEN COURT.*

Terms of subscription, including postage, three dollars per year in advance.

All communications and business letters should be addressed to

THE OPEN COURT PUBLISHING COMPANY,  
P. O. DRAWER F, CHICAGO, ILLINOIS.

THURSDAY, MARCH 1, 1888.

## GOETHE'S MONISM.

The famous scientist Haller, who lived in the end of the eighteenth century, was a forerunner of La Marck, Treviranus, Karl E. von Baer, and others, who were the first to discover and state that evolution is the universal law of life and growth. In spite of his sound judgment and stupendous knowledge in natural philosophy, Haller had not yet freed himself from the metaphysical skepticism of his time; he believed, as most of his contemporaries did, in the fundamental unknowableness of natural phenomena. A verse of his, which expressed this at that time popular opinion, was well known and frequently quoted. It is as follows:

"Nature's 'within' from mortal mind  
Must ever lie concealed.  
Thrice blest e'en he to whom she has  
Her outer shell revealed.

Goethe could not be reconciled to this view, which splits Nature in twain and places us as well as our inquiring mind outside of Nature, as if we were locked out from her secrets for ever. He replied to Haller's verses in a short little poem, which is not so much known as it deserves to be:

"In's Innere der Natur"—  
O du Philister!—  
"Dringt kein erschaffner Geist?"  
Mich und Geschwister  
Mögt' ihr an solches Wort  
Nur nicht erinnern;  
Wir denken: Ort für Ort  
Sind wir im Innern.

"Glückselig! wem sie nur  
Die äussere Schale weist!"  
Das hör' ich sechzig Jahre wiederholen.  
Ich fluche drauf, aber verstoßen.  
Sage mir tausend-tausendmale:  
Alles giebt sie reichlich und gern,  
Natur hat weder Kern  
Noch Schale,  
Alles ist sie mit einem Male.  
Dich prüfe du nur allermeist,  
Ob du Kern oder Schale seist!

This poem has not yet, as far as we know, been published in an English translation. We present the following version:

"Nature's within from mortal mind"  
Philistine, sayest thou,  
"Must ever lie concealed?"  
To me, my friend, and to my kind  
Repeat this not. We trow  
Where'er we are that we  
Within must always be.

"Thrice blest e'en he to whom she has  
Her outer shell revealed."  
This saying sixty years I heard  
Repeated o'er and o'er,  
And in my soul I cursed the word,  
Though secretly I swore.  
Some thousand-thousand times or more  
Unto myself I witness bore:  
"Gladly gives Nature all her store,  
She knows not kernel, knows not shell,  
For she is all in one.

But thou,  
Examine thou thine own self well  
If thou art kernel or art shell."

P. C.

## THE GRAMMARIAN OF THE CELESTIAL LANGUAGE.

Similarly as Goethe and Schiller were the most brilliant twin stars in Germany's poetical galaxy, so also Bunsen's and Kirchhoff's names are eternally connected with each other in the empire of physical and chemical science. Professor Kirchhoff died lately, and Robert von Helmholtz, one of the disciples of Kirchhoff and son of the famous scientist, has published in the latest *Rundschau* (February, 1888) an essay on Professor Kirchhoff's life and merits. Kirchhoff discovered that the rays of light from the celestial bodies speak a language which can be understood by an analysis of their spectrums. He was the grammarian who deciphered the rules of that language, and who thus easily ex-



plained the dark Fraunhofer lines in the spectrum of the sun.

We publish in the present number the translation of an extract of Robert von Helmholtz's article and here add a passage from the obituary notice in the *Berichte der Deutschen Chemischen Gesellschaft*:

"In the spectral analysis of the sun as perfected by Bunsen and Kirchhoff, analytical chemistry has been enriched by a method which, through ease of manipulation and its accuracy, throws all other methods into the shade. It was a favor of fortune that led the paths of these two investigators together; for only through the association of one who stood at the head of *chemical* learning and thought with one who was a complete master of the whole field of *physical* science, could a work be accomplished which, with untiring energy, sifted, completed and extended the results of previous investigation and formed them into a new system of chemical analysis. Only through such an alliance would it have been possible for us to have in our possession an apparatus which, outdoing by far the most powerful microscope, can bring under observation vestiges of matter which were previously beyond reach of all perception.

"In 1857 the treatise on solar spectra appeared; in 1859 his work on the Fraunhofer lines, and at last his treatise on the relation between the emission and absorption of light and heat were published. How the eyes of physicists were opened! The puzzle of the dark lines which mysteriously cross the solar spectrum is solved, and with this solution a new world was opened to the science of chemistry. The debris of unknown worlds which from time to time reached the surface of our planet, had, it is true, informed us of the existence of telluric elements in the space beyond us; but that was all that we knew. With the knowledge of the relation between the dark lines of the solar spectrum and the bright colored lines in the spectra of telluric elements, the constitution of the bodies of the heavens could be determined. Seldom has any discovery exerted a more dazzling fascination upon mankind! It had appeared hitherto as the grandest acquisition that by the rays of light a fleeting picture which before was trusted to the eye alone could be permanently retained. And now it sounded like revelation when we learned that the same rays of light, forced into the service of science by Kirchhoff's genius, could unveil to mortals the very nature of the heavenly bodies.

"That proud but true saying of the Roman poet, spoken of himself, could never have come from the modest lips of the German scholar, and yet none could say with better right:

"Non omnis moriar, multaque pars mei  
Vitat libitinam."

The unity of nature is far greater than is generally imagined. Professor Werner, in Gustav Freytag's novel, *The Lost Manuscript*, dwells on this subject when speaking of the storm. On page 791 of the present number of THE OPEN COURT, he says: "There is a secret union between every movement of nature and our own spirits, and all things living, however averse to individual existence, together form a vast unity. The conception and recognition of this unity have, at all times, been the most sublime feeling of which man was capable."

#### GUSTAV ROBERT KIRCHHOFF.\*

BY ROBERT VON HELMHOLTZ.

Gustav Kirchhoff was professor of mathematical physics. I give this fact precedence, not because its importance would place it at the beginning of an article in a biographical dictionary, but because mathematical physics is a science that only those who possess an inborn aptitude for it are qualified for. There are vocations in life, there are departments of science, from which we can never ascertain what kind of people their devotees are. Whosoever intends to enter certain departments of abstract science, must possess capacities and talents of a definite order and nature; otherwise he will never get beyond the threshold.

Such a science is pure mathematics. Daily experience in schools teaches that very few are qualified for it. Still more difficult is it to determine upon what intellectual faculties it rests. Mathematics is logic applied to space and quantity. Mathematics therefore requires great power of abstraction and an intuitive conception or magnitudes and their relations. It is certain that the conception, judgment and construction of things by a mathematician must be necessarily of a special kind, because the mechanism of pure logical reasoning is eminently developed in mathematical processes.

The natural scientist, on the other hand, requires quite a different talent, that of observation. Everybody whose activity necessitates observation belongs, in the widest sense of the word, to the investigators of nature; the physician, the traveler and the collector are all natural scientists. Observation consists in noting and gathering what has been noted. According as the principle of collecting is regulated by higher and higher characteristics, observation approximates more and more to reasoning, collecting more and more to interpreting, and the knowledge of nature more and more to the exact science of nature. Its devotees no longer work with the purely æsthetic faculty of observation alone, but also with the logical power of induction. They differ from mathematicians principally in this, that the material for their thought is placed in the external world, and they must possess the talent to find it there, whereas the foundations of mathematics are given seemingly *a priori*.



Mathematics is eminently the most convenient aid of exact natural science, for the reason that it is the language wherein its conclusions may be expressed with greatest conciseness and precision. For this reason all natural science is becoming more and more mathematical. Physics, next to astronomy, has attained the greatest development in this direction, and chemistry is about to follow it. Thus to-day, that man will be, upon the whole, the greatest physicist who unites the faculty of observation with logical acuteness of thought, who has mastered experimental and mathematical science. According as the one or the other predominates, the rank of the individual investigator, in this competition of abilities, will approach either to that of an investigator of nature or to a philosopher of nature. Both are indispensable; the latter is the more uncommon, for there are always more good observers than good reasoners. Gustav Kirchhoff *belongs* naturally rather to the great thinkers, and yet his most celebrated and grandest discovery was an observation. He is therefore, as a mathematical physicist, one of the greatest of natural philosophers, for having united the faculties of observation and abstract reasoning.

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Kirchhoff's most popular work is the *spectrum analysis*. It has involved results most extraordinary and universal; it has come to be of the greatest significance to all branches of science; it has aroused the wonder and imagination of man as has seldom been done by any discovery, for it has opened to view worlds that seemed to be closed to us forever. It has thus become the greatest and most renowned of Kirchhoff's works.

But wonderful as these results are, we think the truly master-like work, the uncommon acuteness, the ingeniousness and assiduous spirit of the method in which Kirchhoff, from an accidental observation, induced, step by step, a universal theoretical law and with it those astonishing consequences, demonstrating all with rigid accuracy—we think this to be a greater work and more worthy of our admiration. Great men before him had had the threads of this discovery in their hands, without being able to unravel them. Frenchmen and Englishmen have asserted and still maintain rights of priority. Kirchhoff quietly, but firmly, refused to acknowledge them. They had all seen, all surmised and conjectured something as possible or probable, without Kirchhoff's having known it at the time. A safe basis, a strong proof had been given by none. It was reserved for the acuteness, thoroughness and perseverance of German scientists to elevate this idea, the result of a fortunate incident, to the domain of scientific certainty.

Spectrum analysis in the narrower sense, that is the analysis of chemical elements by spectral observations, if any distinction is to be made, is to be credited to the

idea and instigation of Bunsen. To the most ingenious of Bunsen's discoveries belong certain, simple, physical methods of qualitative chemical analysis, i. e., the determination and discrimination of chemical elements. He had ascertained as the most characteristic reaction of chemical analysis the colors of non-illuminating flames. Every chemical element in a non-illuminating flame, e. g. a blue gas-flame, whether volatilized or burnt, lends the same a certain tint peculiar to itself. We would accordingly be able to distinguish every substance by the light that its incandescent vapor emitted, were our eyes capable of distinguishing so many innumerable lines of color as there are elements in nature. Kirchhoff and Bunsen came to the aid of our vision. By means of the prism they analyzed the light of the flame into its elemental constituents and its elemental colors. In this way arose the spectrum of light produced by a flame. The rainbow is a natural spectrum of the sun's light projected through drops of rain. But this, as well as the spectrum of all incandescent solid bodies, presents quite a different appearance from that of a flame, viz.: that of an incandescent gas. The former is made up of continuous colors blending with one another in imperceptible gradations; the latter entirely of bright, separate lines which, separated by dark spaces, not only possess their characteristic colors, but lie in certain positions and at certain distances, each element having its own.

As in the heavens we recognize the constellations by the respective position and brightness of the single stars, so do we distinguish the spectrum of iron from that of copper by the respective distances and tints of their spectral lines. In fact we could dispense entirely with the colors; it would suffice to measure by a scale the positions of the separate lines, in order to ascertain from Kirchhoff's and Bunsen's tables the chemical element we had to deal with. It is marvelous, but true. A person totally color-blind could determine in this way with absolute certainty what colors a flame emits. The greatest excellence of a natural scientific method, namely, independence of subjective judgment, has been given to spectrum analysis by its discoverers. The chief work and the chief merit of Kirchhoff and Bunsen was, however, to have elaborated the proof of the correctness of their method. They have proven that the position of the lines depends upon the chemical nature of the light-emitting incandescent vapor *alone*, and not upon its temperature, or on other foreign elements present, or on the nature of the flame wherein the substance is volatilized, or on any other secondary conditions. This demonstration was given experimentally, and with great care and pains. Bunsen could therefore, very soon after his discovery, make the positive statement that he had discovered by spectrum analysis a new element, having found a salt in a certain mineral spring that showed



unknown lines. The most sensitive method of chemical analysis to-day is that by spectrum analysis.

Still more wonderful are the further discoveries by Kirchhoff and based on the method that he and Bunsen established. Kirchhoff, partly by accident, once let a ray of sunlight pass through a flame colored with sodium, and then through a prism, so that the spectra of the sun and the flame coincided. It was to be expected that the well-known yellow line of the sodium would stand out, bright and clear, from the solar spectrum: Just the opposite happened; exactly at the spot where the bright line had to show, a dark line appeared. To Kirchhoff this "reversal of the sodium line" was remarkable in the highest degree, and he at once surmised that a fundamental law must lie at the bottom of this fact. It was learned later that others had observed the very same thing, and in fact, men of the greatest authority. But the genius of Kirchhoff alone succeeded in divining and exposing the treasured truths that lay concealed within. On the day after the experiment he was already able to derive and explain the observed phenomenon from a much more universal principle which, strange to say, belongs not to Optics but to Heat. From the apparently remote principle that heat passes only from a body of a higher temperature to a body of a lower temperature and not vice versa, he induced by purely logical inferences the fact of the "reversal of the sodium line." The link of the process constitutes the celebrated "Kirchhoff's Law of the Emission and Absorption of Light and Heat," which states that all bodies absorb the very rays and very colors that they themselves emit, and that the proportion between the light absorbed and emitted is one and the same with all bodies. The treatise in which this was demonstrated is perhaps the most beautiful that Kirchhoff has written, although the least mathematical. The history of this law may serve as a model for the investigations of natural scientists; the law has been rigorously induced from more general and known principles; the law affirms something new in itself; the law covers the most diverse and special cases which may be established by experiment.

It will fall to the lot of very few to make such discoveries, but all should take pattern by his industry, logic and carefulness, and no less by the modesty with which Kirchhoff made known his discovery to the Berlin Academy: "Upon occasion of an investigation of the spectra of colored flames, conducted in common by Bunsen and me, whereby we were enabled to determine the qualitative composition of complex compounds from the appearance of the spectra of their blow-pipe flame, I made some observations which unexpectedly explain the origin of Fraunhofer's lines and warrant conclusions from these as to the elemental constitution of the solar atmosphere and perhaps to that of the brighter fixed stars."

These words prove that Kirchhoff himself inferred at once the most wonderful application of his law.

The Fraunhofer lines mentioned here, are, as is well known, the fine dark lines that cross the solar spectrum proper, that is when not seen through a flame. The nature of these lines had been formerly an impenetrable mystery. The experiment of Kirchhoff just given, showed that artificial Fraunhofer lines also could be produced by letting a ray pass through a flame.

The inference was at hand that the natural lines were produced by the same cause as the artificial ones, that they were "reversed" spectra of gaseous bodies, and that the light of the incandescent solar mass must have somewhere or other passed through incandescent gases before reaching the earth. Still more follows. If the artificial lines coincide with Fraunhofer's lines, as Kirchhoff for example proved in the case of the lines of iron, sodium and nickel, we might infer, upon the basis of the Bunsen-Kirchhoff investigation, that these chemical elements were also contained in the supposed incandescent gases mentioned. The fact that the sun consists of a dense, molten mass enclosed by a light-giving envelope, and above all, that it contains those telluric elements whose spectral lines coincide with the Fraunhofer lines, this fact resulted "with a certainty as great," says Kirchhoff, "as is at all attainable in natural sciences."

It is characteristic of Kirchhoff that he computed this certainty mathematically. It might after all have been possible that the coincidence of the bright lines of iron with Fraunhofer's lines was accidental. But the probability of this resulted only as  $\frac{1}{1,000,000,000,000,000}$ , that is equivalent to zero. "There must be a cause that effects these coincidences," says Kirchhoff. "A cause can be adduced which is absolutely efficient; the phenomenon is explained, if the rays of light that produce the solar spectrum have passed through iron vapors and there suffered absorption by the iron vapors. Furthermore, this is the only admissible cause of these coincidences; its acceptance appears therefore necessary."

We may introduce a story here that Kirchhoff himself liked to tell. The question was being discussed as to whether Fraunhofer's lines proved the presence of gold in the sun. Kirchhoff's banker remarked: "Of what use is gold in the sun to me, if I can't get it down here?" Kirchhoff received in recognition of his discovery a medal from England and the value of the same in gold. As he brought this to the banker, he said: "My friend, I've gotten gold from the sun after all."

As we already remarked, it had been a matter of entire indifference to Kirchhoff in his own estimate of the importance of his law, whether anything definite as to the nature of the sun and fixed stars accidentally resulted therefrom, or whether it possessed for the time being



only a theoretical interest. It is highly characteristic of him that he makes no mention whatever in his theoretical lecture of all that great region which his discovery made accessible, and that in his collected essays he has placed it at the end.

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In his inaugural address upon entering the rectorship at Heidelberg in 1865 he says: "There is a science, mechanics, whose business it is to determine the motion of bodies, when the causes that condition it are known. . . . Mechanics is closely related to geometry. Both sciences are applications of pure mathematics. The theorems of both as regards their certainty, stand exactly on the same level; we may with as much right attribute absolute certainty to the theorems of mechanics as to those of geometry."

And he adds further: "Did we know all the forces of nature and did we know what the condition of matter at any one point of time is, we would be able by the science of mechanics to deduce and determine its condition at every succeeding point of time. The highest object that natural sciences have to strive to attain, is the realization of the hypothesis just presented, namely, to refer all natural phenomena to the science of mechanics. This object of natural science will never be fully attained, but the fact that it is recognized as such, tenders a certain satisfaction, and in the approximation to this lies the highest pleasure that the study of natural phenomena can afford."

In contrast to these statements let me quote the words which have since gained celebrity and with which Kirchhoff begins his "Mechanics," published in 1875: "Mechanics is the science of motion. Its object we define to be this: *To describe with exhaustive thoroughness and the greatest attainable simplicity the motions that are taking place in nature.*"

The difference between this definition of mechanics and the first one is worthy of attention. There, then and before that large audience Kirchhoff spoke of the "causes" of motion. Here, now and in this rigorously mathematical work the word and conception of "cause" no longer occurs. The "explanation" of nature is given up, the simplest possible "description" of nature is now sought. Those words of introduction in his "Mechanics" and their elaboration in the work itself are a most pregnant and comprehensive expression of Kirchhoff's conception of nature. Of the possibility of the determination of things as such, it makes no sort of an hypothesis or supposition. Its object is to portray phenomena in a logically determined form. According to Kant, in the external world the theorems of geometry and mechanics only are logical, that is *a priori*, the principles of the latter differing from those of the former only in this, that, besides the three dimensions of space, it needs a fourth, that of time, and the conception of mat-

ter in motion. With these three fundamental conceptions of space, time and matter, Kirchhoff endeavors to accomplish his object in the description of the facts of experience. He goes beyond his predecessors in so far as to represent in purely geometrical form the conceptions of "force" and "mass," which were held to be fundamentally logical. "Force" appears to him primarily as the acceleration (change in velocity) which a particle of matter acquires in a unit of time, and the knowledge of all these "accelerating forces" at any one point of time would suffice for a description of the world. Experience has shown, that the description gains in simplicity, if we multiply the accelerations by a "determinate positive constant;" this constant is called the "mass" of "the particle in motion."

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Kirchhoff's aspirations after light and truth in everything, are prominently marked in his philosophical attitude, and caused him to interpret his mission in science rather too rigorously to admit even the semblance of dogma in it, as perhaps the uniformity of nature suggests. And yet it is not only as a critical thinker that he analyzed nature. His greatest discovery shows that he possessed that quick discernment, that ardent investigation, that intuitive insight into the workings of nature's forces, without which the true scientist can never successfully work. We repeat: Kirchhoff ranks among the first of natural philosophers because, as a mathematical physicist, he united the faculties of observation and abstract reasoning.

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## CORRESPONDENCE.

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### "THE SECULARIZATION OF RELIGION" BRIEFLY REVIEWED.

To the Editor:

Assuming that THE OPEN COURT is open to any rational and courteous rejoinder to any of its contents the following is respectfully submitted:

In the article captioned as above in the November issue are some striking truths mixed with and marred by some equally evident misapprehensions. To begin with, I agree with the author that, so far as any proof or demonstration known to me will go, the brain is the seat and organ of mind and that the existence of a spiritual essence in man, commonly called the soul, and of which independent existence is predicated, is a pure assumption, a philosophical speculation. This "irrational hypothesis of a vital principle," by which I suppose is meant a deathless principle, does not, however, underlie Christianity; it has been foisted upon Christianity and its influence therein has been insidious and destructive. The author's concluding sentence: "Modern Christianity is something very different from that of its founder, being, indeed, mainly Alexandrian neo-Platonism, metamorphosed and blundered by nescient emotionalists," contains also much deplorable truth. Myself an ardent Christian, I wish to be entirely impartial, to acknowledge errors and claim only what facts require. The difference stated above has occurred to the doctrinal bases of Christianity. It may have impaired its ethical value, but the self-sacrifice and benevolence which are to-day the attributes of every one worthy the name of Christian have found exem-



plans in the Church even in the darkest and grossest centuries. In its ethical character Christianity is nearer its founder than in its eschatology.

Jesus did not say what is so often attributed to him, viz.: "The kingdom of God is within us." The true translation of Luke 17-21 is: "in the midst" or "among," and referred to his own presence, as the succeeding context plainly shows. And he did not say "us," but "you," referring to the Pharisees, who appeared to possess no seed of heavenly truth.

In accepting the author's closing paragraph in its doctrinal sense I wish emphatically to except from its sweeping statement a very considerable portion of the Church, of whose number the writer is one. We may not dogmatically declare that the man, the whole man, the ego, the thinking, willing and executing man, is an organization of matter and nothing more, though we are able to discover nothing else but the life principle common to all grades of animals. We, however, unhesitatingly reject the half platonic theory that man is an immortal spirit. The original and complete speculation was that man had neither beginning nor end. The half-converted Greeks who foisted the mutilated theory upon the Church and through the hands of Augustine succeeded in riveting it there, greatly damaged but did not destroy the Christian system. They were actuated by the motive that prompts men to day, both inside the Church and out, the desire to have a more "lofty philosophy." There are many who cannot endure the sort of faith that Job had. He knew nothing of immortality, but believed in God. He expected to die and moulder to naught, but he knew that every intelligent being loved its own creations, and so he says: "Thou wilt have a desire to the work of thine hands, Thou shalt call and I will answer Thee." All known heathen peoples have believed in a life beyond the grave as a continuance or a consequent of this life, many in an endless life. It is singular that the Hebrews alone believed in revivification only by resurrection at the will and pleasure of God. The fact that Jesus and Paul and John teach precisely the same doctrine and that science to this day has been unable to discover any other road to the much-coveted future life looks a little like a consensus.

The author is right in saying that the Bible nowhere teaches man's natural immortality; he is totally wrong in saying that it does teach that the identical body which died and decayed, and which science teaches is resolved into its constituent elements, will be literally restored. Let him read Corinthians 15, in which Paul distinctly declares that it is not the same body. Those of the Church, who believe that man is a spiritual being *now*, speak of the "resurrection of the body." A more accurate phraseology is the "resurrection of the man." Resurrection means "raising up to perfection of life," and is practically understood as re-creation without loss of identity. Paul plainly says it is a mystery, and I suppose the most "advanced" rationalist will accept a well authenticated fact, however mysterious it may be. Paul plainly hinges faith in the resurrection of the faithful on the already proved return from death of the Savior. There stood the indisputable fact, attested by over five hundred persons who knew Jesus "after the flesh." Our author seems to scoff at the "stigmata of nail-marks," and says that faith in the resurrection is not a "lofty philosophy." That is true. The world has been surfeited and confused with too many lofty philosophies that tickled and puffed up and deluded poor humanity up to the brink of the grave and then deserted the hopeless wretches, leaving them to flounder in vague and sounding phrases or to sink in despair. Jesus returned bearing the nail-marks that every carping mouth should be closed forever. Had he come without them it would have afforded a pretext for unbelief, as in the case of Thomas. It is scarcely gracious or scientific to object to the proof which would surely have been demanded if absent.

That the bruised body of Jesus, in which he showed himself after his resurrection, was his true and glorious one is not likely. To mortal eyes that could bear no other, and for the confirming of their faith, he thus appeared, but he was "raised a spiritual body," descriptions of which are found in Daniel x, and in the Revelation. It is to that "perfection of life" the spiritual body or being like unto the risen Jesus that his followers hope to attain. To say that they are immortal now is to throw the whole system into confusion.

Our author argues that to prove that "mind is brain function and nothing more" is "fatal to every form of supernaturalism." If he will explain the latter phrase by saying that it means the popular immortal-soulism of the nominal Church I will agree with him. If he desires to extend the definition beyond that point and claim that his demonstration forbids belief in a possible future re-creation of man, such as the proven resurrection of Jesus, with his infinitely sublimated powers, and the angelic appearances point to them, I say that he is stretching his evidence to cover a case that is wholly beyond its scope. The speculative errors which the Church embraced so long ago, and which she has not yet become strong enough to slough off, though hundreds of her pulpits and many thousands of her members reject them, subject her to righteous criticism. For one, I welcome these from any quarter, but those who claim to be rational and of superior wisdom should not fail to be well informed as to the real teaching of the scriptures or the progress of truth in the Church, nor should they lack in fairness in expounding the views they endeavor to supplant.

J. ALBERT STOWE.

#### MIND AND CONSCIOUSNESS.

To the Editor: HEMPSTEAD, TEXAS, Feb. 4, 1888.

You and Mr. Hegeler have expressed the desire (in a letter of December 31st, 1887) to know how it happened that in my friendly contention with Professor Cope I have used "consciousness" and "mind" synonymously. I did so, partly out of courtesy to my adversary, who habitually makes use of the phrase "mind or consciousness," and partly to carry on the discussion as much as possible on the basis given by himself.

Allow me, however, to indicate as briefly as possible how I myself distinguish "consciousness" from "mind." "Consciousness" is that state of our being in which we are aware of what is usually classified as sensations, perceptions, emotions, thoughts and volitions. When we are thoroughly asleep or in a swoon we are not aware of such affections, and are consequently not conscious.

Consciousness, of course, can be only a *present* phenomenon, a manifestation taking place within us at the *very moment*. When we are conscious of something that has occurred in the past, this retrospective consciousness takes place likewise only in the moment of present awareness. The same holds good with prospective consciousness. We foresee the future only as content of our present consciousness.

I have called this one, all-comprising moment of conscious realization "the mental presence," and have repeatedly pointed out that its contents vanish from moment to moment into nothingness, and are as constantly reconstituted, under kaleidoscopic changes, from a persistent vital matrix. Consciousness is always the effect or outcome of some underlying *activity*, never itself the manifesting substrate.

The underlying vital matrix is perceived by us as the nerve-system of organic beings. And all the functional activities of this nerve-system contribute toward the production of the mental presence, though many phases of it may remain unconscious; and this not only from their not attaining a sufficient degree of intensity, but also by dint of normal disposition (see "Space and Touch," *Mind*, No. XL.).

When the term consciousness is used collectively for a series



of mental states which we experience during an hour or a lifetime, it does not denote an actual phenomenon or veritable existent, but stands merely as a general name, in the same way as "animal" or "plant."

The term "mind" signifies to most persons some active, immaterial agent within us, capable of producing or manifesting conscious states. As I do not believe in such an agent, I can rightly speak of mind only adjectively, as when I say: "mental states," and then "mental" is really synonymous with "conscious." Or I can speak of it, at most, as an attribute of our being, as when I say: "our mentality," which is not synonymous with "our consciousness," as it includes also the unconscious working of the brain toward the production of consciousness.

We can, moreover, not well avoid using the term "mental" as an opposite to "physical." This distinction is felt by every one to be legitimate. Yet it is incontestable that everything physical—all matter and all motion—is realized by us solely as perception of our own. We become aware of it as a peculiar kind of conscious event within our own mental presence. A physical fact is, consequently, itself of mental consistency, for it forms part of our own consciousness. And the only essential difference between it and other constituents of our consciousness lies in the fact of its being aroused in us through compulsory sense-stimulation, while other conscious states arise in us without any compulsory influence working upon us from outside our own being.

To become, however, fully alive to the radical contrast obtaining between what we call a "physical" and what we call a "mental" fact, we need only realize that mental facts, as such, are entirely imperceptible through sensory channels, while it is the very characteristic of physical facts to be thus perceptible. I can touch your physical being, hear your voice, and see your body move and gesticulate; but I cannot touch, hear or see any of your sensations, perceptions, emotions, thoughts or volitions. These are inwardly or retrospectively realized by yourself alone.

The distinction here established is essential. It excludes first of all the possibility of our entire being consisting of mind-stuff, as believed by idealists of all shades. And it excludes also the possibility of anything mental being in the remotest degree akin to physical forces, as taught by materialistic thinkers, for no one can deny that we give the name of "force" only to that which is capable of affecting our senses in some way or other, and this is exactly the kind of effect that nothing purely mental can produce.

Yours, very truly,

EDMUND MONTGOMERY.

#### THE PHILOSOPHY OF MONISM.

To the Editor:

ATLANTA, ILL., Feb. 18, 1888.

The Philosophy of Monism, as I understand it, explains the unity and the simplicity of the supreme laws of nature.

It is in accord with Monotheism as well as Pantheism, if they are rightly interpreted. It unifies all phenomena, both material and spiritual. It reconciles and unites God and nature, spirit and matter, and makes them consubstantial and correlative. I believe in a natural religion, in adoration and in the immortality of the soul. I believe with Goethe, when he says: "Certainly there does not exist a more beautiful worship of God than that which needs no image, but which arises in our hearts from converse with nature." It is through this kind of worship, enlightened by science as interpreted by the Monistic Philosophy, that we are led to the sublime idea of the unity of God and nature.

Monism is supported by our most advanced science; it is optimistic and, unlike dualism, it introduces no intellectual confusion, no antagonisms into science and religion. Emerson must have believed in monism when he said: "Let us build altars to the Blessed Unity and the beautiful necessity which holds nature

and souls in perfect solution and compels every atom to serve an universal end and which secures that all is made of one kind.

"In astronomy is vast space, but no foreign system; in geology vast time, but the same laws to-day.

"Why should we be afraid of nature, which is no other than philosophy and theology embodied? Law rules throughout existence, a law which is not intelligent, but intelligence, not personal nor impersonal—it disdains words and passes understanding, it dissolves persons, it vivifies nature; yet solicits the pure in heart to draw on all its omnipotence."

The Philosophy of Monism gives me intellectual satisfaction, because of its ability to unify and reconcile heretofore discordant theories of things. For instance, by monism, both the *a priori* and *a posteriori* ideas of the mind are recognized and their differences satisfactorily explained. Also the doctrines of animal types and animal descent are reconciled, and Cuvier and Darwin were both needed, and both were right if also a little wrong. Monism makes life worth living—makes existence the highest boon, and teaches that next to non-existence *anti-naturalism*, as inculcated by the pessimistic religions, is the greatest calamity.

W. W. RICHMOND.

#### BOOK REVIEWS.

WINTER. From the *Journal of Henry D. Thoreau*. Boston: Houghton, Mifflin & Co., 1888.

Somewhere Thoreau wrote: "I desire so to love wisdom as to live according to its dictates a life of simplicity, independence, magnanimity and trust." And surely there are but few men who can boast greater success in the achievement of their desires. To such an extent was he successful, that on his death-bed he could say, "I regret nothing."

It is but natural that a man who both in his life and in his writings waged such open war against society and all its established laws and customs should incur the dislike, not to say hostility, of many—unsympathetic critics in particular—who were all too ready to call him a "prig" and a "humbbug," and to detract from him in every possible way until their detraction necessarily reflected upon themselves. But those who knew him (and they are the ones whose judgment all unprejudiced people will accept) agree in pronouncing him to have been as sincere and as pure a man as could be met with. He certainly was a man of extraordinary parts. His whole life was devoted to self-development and self-improvement. He cultivated all his powers and in whatever he undertook to do he was successful. His senses were the most acute conceivable, eyes and ears, nose and tongue,—and his mind was equally acute. "He saw as with microscope, heard as with ear trumpet, and his memory was a photographic register of all he saw and heard." So far as society and its artificial paraphernalia were concerned, he was essentially a negative spirit; but in the realm of nature and in the domain of truth he was an enthusiastic, bold and fearless champion.

No matter in what phase of his career we view Thoreau, whether as poet, philosopher or naturalist, what everywhere impresses us most strongly is his personality. He was the individualist of individualists. His existence was the practical demonstration of his theory of life. Such absolute independence, such self-poise, such self-reliance as he everywhere exhibited could be produced only in this country. He felt no obligations to any one; to himself alone he felt accountable. His mind was quick; he knew his own convictions, and when the occasion arose he said what he had to say and not what he might be expected to. After the arrest of John Brown, when Massachusetts and indeed the whole North were still doubtful and undecided, it was Thoreau who first had the courage to step forward and raise his voice in defence of the hero of Harper's Ferry.



It is much to be regretted that hitherto no adequate biography of Thoreau has been published. All the accounts of his life that have been written are at best unsatisfactory. His inner life is fully and strongly depicted in his writings. Not a page that does not unmistakably bear his stamp.

This last volume, made up of further extracts from his journal, will be welcomed by all who have in any way come in contact with the individuality of Thoreau. It is as characteristic and as interesting as any one of its predecessors. It is full of those original, pithy sayings for which he is famous, and in the thought and construction of which he ranked second to none—Emerson, perhaps, excepted. We quote the following at random: "I do not think much of that chemistry that can extract corn and potatoes out of a barren soil, compared with that which can extract thought and sentiment out of the life of a man on any soil." "It is in vain to write of the seasons unless you have the seasons in you." "Man's noblest gift to man is his sincerity, for it embraces his integrity also." "I would be in society as in the landscape; in the presence of nature there is no reserve nor effrontery."

We are accustomed to think of Thoreau chiefly as a naturalist; and all the titles of his books would lead us to infer that such was the case. But he was much more than that. He was above all a humanist. All of his endeavors were directed toward establishing the relation of life to nature, and toward discovering the analogies between our existence and the rest of creation. As Emerson said: "His soul was made for the noblest society; wherever there is knowledge, wherever there is virtue, wherever there is beauty, he will find a home." H. F.

VIRGINIUS PUERISQUE, AND OTHER PAPERS.—MEMORIES AND PORTRAITS.—MEMOIR OF FLEEMING JENKIN. By Robert Louis Stevenson. New York: Charles Scribner's Sons.

Rarely has an author achieved such sudden and phenomenal success as has Mr. Stevenson. Ever since the appearance of *Dr. Jekyll and Mr. Hyde*, Mr. Stevenson's name, although well-known long before that, has become a household word wherever the English language is spoken. The addition of the above three titles to the already extensive list of this author's writings will contribute not a little to make him still dearer, if that be possible, to those who have learned to admire him.

The first two mentioned volumes are collections of Mr. Stevenson's early essays. The main feature which lends to them their great charm is the perfect honesty displayed by the author and the manner in which he takes his readers into his confidence. From cover to cover there runs an undercurrent which is, through and through, autobiographical. It is as though we met the author face to face and as though he, endeavoring to interest and entertain each one of us individually, were in the most confidential manner acquainting us with the past events of his life. We must acknowledge ourselves under the spell of personal magnetism—or, perhaps better, the magnetism of personality. It is the predominance of the subjective element without the obtrusion of excessive egotism that immediately attracts us so strongly. The writer is a keen observer, and he does not hesitate to tell what he sees and feels. That is another of his strong points. He is genuine. Although we can by no means agree with all his views, we must give him credit for having the courage of his convictions. But in one of his views we heartily concur, and that is where, speaking of Mr. W. D. Howells, he says: "None ever couched a lance with narrower convictions. His own work and those of his pupils and masters singly occupy his mind; he is the bond-slave, the zealot of his school; he dreams of an advance in art like what there is in science; he thinks of past things as radically dead; he thinks a thing can be outlived—a strange immersion in his own history! a strange forgetfulness of the history of the race!"

The memoir of his friend, Fleeming Jenkin, is a well—we may even say artistically—written account of a man who seems in every respect worthy of such a tribute. H. A. L.

FOOLS OF NATURE. Alice Brown. Boston: Ticknor & Co.

The author makes definition in her book of *Fools of Nature* as all those in whom a sensitive idealism is combined with that love of the marvelous which leads them to seek help and instruction from unusual and supposed supernatural sources. The particular form of the marvelous here dealt with is modern spiritualism. In Ben Adams and the professional medium and impostor, Professor Riker, we have excellently drawn an opposite specimen of the advocates of this particular belief. The love story which runs through the book, and which, after the first few chapters, commands the reader's chief attention, is of singular power; but we think the main problem which the author attempts to settle in the marriage of the divorced hero is treated with a somewhat morbid fancy and straining after the impracticable, albeit with much profound moral insight and purity of aim. The scene between Stephen and Sarah, when she feels compelled to leave him, reaches the height of moral sacrifice and a sublime devotion to the ideal in Stephen's words: "I haven't cared for some things you care for," he began, hoarsely, making sudden pauses between the words. "I am contented to live along and be happy. Your nature is so high that your happiness lies in renunciation. I can't bring myself up to your level, but there is one way in which I won't fail you; you shall choose your right, and I will help you to do it." There are many other quotable passages worth repeating, both for style and matter, if space permitted. C. P. W.

THE *Unitarian Review* for February contains, among other articles, "St. Paul's Doctrine of Salvation," by Conrad Mascol; "The Persistence of Caste," by Alfred H. Peters; "The Religion of Zoroaster," by David G. Hubbard, and "The Anglo-Irish Question," by Francis William Newman. Among the editor's notes are some striking remarks of the Persian Minister at the Court of St. James, quoted from the *Pall Mall Gazette*. They are an appeal for the introduction of a liberalized Christianity among the Asiatic peoples. "Believe me, neither immortality nor sectarianism is the true cause of your failure to push your civilization in Asia and Mohammedan countries. It is your Christian dogmas that offend us. We can coin dogmas, like you—better than you. We will not have them. We will have your benevolence, your charity, your justice and truth, your science of health, your railroads, telegraphs and manufactures."

A *Quarterly Review* of the work of the Societies for Ethical Culture will be published in April, July, October and January of each year, beginning with April, 1888. It is the purpose of this *Review* to present news of the Ethical Movement at large, but especially of the work in progress in the different societies belonging to the Union of Societies for Ethical Culture. The general spirit and aim of the movement will receive expression in selected addresses by the lecturers of the different Ethical societies. One such address will be given in each number of the *Review*. The members of the societies and the friends of the Ethical Movement everywhere should remember that the success of this publication depends upon their support. Subscriptions and orders should be addressed to E. J. Osler, P. O. Box 772, Philadelphia.

Men contend with one another in punching and kicking; but no one shows any emulation in the pursuit of virtue.—*Diogenes*.

The richest genius, like the most fertile soil, when uncultivated, shoots up into the rankest weeds; and, instead of vines and olives for the pleasure and use of man, produce to its slothful owner the most abundant crop of poisons.—*Hume*.



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER VI.—*Concluded.*

Frau Rollmaus, however, sat smiling and contented with the philosophical system of her neighbor. Again the Professor turned to her, and spoke of the difficulty of doing good to the helpless in the right way. Frau Rollmaus acknowledged that uneducated people had a way of their own, "But one can easily get on with them, if they only know that one means well by them."

The Professor afterward gave rise to a slight misunderstanding, when he respectfully observed to the lady: "You are right, for in this field patient love is requisite to produce fruitful results."

"Yes," acquiesced Frau Rollmaus, puzzled, "to be sure, these results which you mention are not wanting among us, and they marry for the most part just at the right time; but the patient love which you so truly speak of as requisite is not always forthcoming among our country people, for in marriage they frequently consider money more than love."

If, however, the notes in the concert at the upper table were not quite in tune, yet the turkey and custard-pudding—a masterpiece of Ilse's kitchen—vanished without any adverse concussion of learned wisdom. All rose well pleased with one another; only the children, whose innocent mischief is most enduring, found with displeasure that Frau Rollmaus would not on this occasion enter into any contest in which the encyclopedia could rule as umpire. While the men drank their coffee in the next room, Frau Rollmaus again sat on the sofa, and Ilse had a difficult task to satisfy her curiosity in answering all the questions with which she was overwhelmed concerning the two strangers. Meanwhile the children besieged the sofa, lying in wait for an opportunity to undertake a small campaign against the unsuspecting Frau Rollmaus.

"So they are making researches, and in our district. It cannot be about the Indians. I did not know that any had ever come to these parts. It must be a mistake; and they must mean gypsies, who do make their appearance here. Only think, dear Ilse, a man and two women, each with a child, have come within the last fortnight. The women tell fortunes. What they have prophesied to the house-maids is truly remarkable; and in the morning two hens disappeared. Can it be concerning these gypsies? But that I cannot believe, as they are mere tinkers and good-for-nothing people. No, they are not making investigations concerning them."

"But who are the gypsies?" asked Clara.

"Dear child, they are vagabonds who formerly were a nation, and now spread themselves everywhere. They had a king, and manuscripts, and hounds, al-

though they were great rogues. Originally they were Egyptians, but also Indians."

"How could they be Indians?" exclaimed Hans, disrespectfully; "the Indians live in America. We also have an encyclopedia, and we will examine it immediately."

"Yes, yes," cried the children, and ran with their brother to the book-shelf. Each of them brought a volume with new binding, and placed it among the coffee cups before Frau Rollmaus, who looked by no means pleased at seeing the secret source of her intelligence laid bare before all eyes.

"And ours is newer than yours," cried little Franz, waving his hand. In vain did Ilse endeavor by signs of disapprobation to suppress this outbreak of family pride. Hans held the last volume firmly in his hands seeking the word gypsy, and the overthrow of Frau Rollmaus, according to human calculations, could no longer be averted. But suddenly Hans jumped up, and holding the book aloft, exclaimed: "The Professor is put down here!"

"Our Herr Professor in the encyclopedia?" cried the children.

Family feuds and gypsies were all forgotten. Ilse took the book from her brother's hand, Frau Rollmaus stood up in order to read the remarkable passage over Ilse's shoulder, all the children's heads gathered round the book, so that they looked like a cluster of buds on a fruit tree, and all peeped curiously at the lines which were so glorious for their guest and themselves.

In the article there was the usual short notice concerning living scholars, which contained the place and day of the Professor's birth, and the titles—mostly in Latin—of his works. All these titles were, in spite of their unreadable language, read aloud, with the dates and size of the volumes. Ilse looked into the book for a long time, and then handed it to the astonished Frau Rollmaus, then the children passed it from one to the other. The event made a greater impression here, on both young and old, than it ever did in literary circles. Happiest of all was Frau Rollmaus: she had sat next to a man who not only could refer to books, but was referred to himself. Her admiration of him was unbounded; she found, for the first time in her life, that she could hold agreeable intercourse with a man of this stamp.

"What a distinguished scholar!" she exclaimed. "What were the titles of his works, dear Ilse?"

Ilse did not know; her eyes and thoughts were fixed on the short notice of his life.

This discovery had the good result of causing Frau Rollmaus to lay down her weapons entirely this day, and be content not to display any knowledge, for she saw that on this occasion a competition with the family was impossible, and she condescended to an unpretend-

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ing conversation over household events. But the children arranged themselves at a respectful distance from the Professor, and examined him curiously once more from top to toe; and Hans imparted the news in a low voice to the Doctor, and was much surprised that he thought nothing of it.

After coffee, the proprietor proposed to his guests to ascend the nearest hill, in order to examine the damage which had been done by the lightning. Ilse loaded a maid with provisions for supper, and some flasks of wine, and the party started. They went down from the rock into the valley, over the strip of meadow and the brook, then up the hill, through underbrush, amid the shadow of the lofty pines. The rain had washed away the steep path, and irregular water-channels furrowed the gravel; nevertheless, the women walked valiantly over the wet places. But if any one should have failed to perceive from the dress and bearing of the Professor that he walked in the confidence of manhood, they might have imagined that he was a delicately-shod lady, and Frau Rollmaus a gentleman in disguise, for she hovered round him reverently, and would not leave his side. She directed his attention to the stones, and, with the end of her umbrella, pointed out the dry places to him, and stopped at times, expressing her fear that he would find this jaunt too fatiguing. The Professor submitted, though much surprised, to the homage of the little lady, sometimes looking enquiringly at Ilse, over whose face flitted a roguish smile. On the height the path became easier, and some trees of lighter foliage varied the dark green of the pines. The summit itself was clear; the heather, on which the fading blossoms of the year still hung, spread itself thickly among the stones. On all sides lay the view of the landscape, with its heights and valleys, the deep glen, and brook with its green border, the fields and the valley of Rossau. In the direction of the setting sun there rose, one behind another, long waves of undulating ground, tinted with the purple hue of twilight, passing off into the delicate gray of the mountains in the horizon. It was a delightful prospect, under a clear sky, in the midst of pure mountain air, and the party enjoyed a rest on the soft heather.

After a short stay, they proceeded, led by Hans, to the spot where the tree had been struck by lightning. A belt of high fir-trees was the place of the devastation. A strong, vigorous pine had been struck and prostrated; a desolate confusion of branches and gigantic splinters of the white wood lay all around the broken trunk, which, without its head, blackened and cloven, still rose out of its ruins as high as a house. From the confusion of branches on the ground, it could be seen that the earth also had been torn up even under the roots of the neighboring trees. The older members of the party looked seriously on the spot where one moment had turned

vigorous life into frightful deformity; but the children pressed on into the thicket shouting, seized upon the scaly cones of the past year, and cut branches from the top, each endeavoring to carry off the greatest clusters of the scaly fruit.

"It is only one of a hundred," said the proprietor, gloomily; "but it is painful to contemplate such devastation, contrary to the usual order of Providence, and to think of the destruction that impended over our heads."

"Does this recollection cause you only discomfort?" asked the Professor; "is it not also exalting?"

"The horns of the ram are hanging on the branches," said Ilse, in a low tone, to her father; "he was the sacrifice by which we were saved."

"I think, also," added the Professor, "that any one thus struck by lightning might, if time were left him for a last thought, say to himself it is the will of Providence. We soon forget, in the comforts of daily life, what we should always thankfully bear in our hearts, that we only live, like all other creatures, under certain conditions. Countless forces and heterogeneous powers unceasingly work according to their own fixed laws, maintaining, supporting, or injuring our life. The cold which checks the course of our blood, the breaking waves in which the human body sinks, the injurious vapors from the earth which poison our breath, are no accidental phenomena; the laws by which they act upon us are as ancient and holy as our need of food and drink, of sleep and light; and when man weighs his position among the powers of earth, he must consider his life only as a struggle against them and an endeavor to understand them. Whoever provides the bread that nourishes us, and whoever grows the wood that warms us—every useful activity has no other purpose than by subduing and wisely utilizing these forces to strengthen and to protect us. In this work we also observe that there is a secret union between every movement of nature and our own spirits, and that all things living, however adverse to individual existence, together form a vast unity. The conception and recognition of this unity have, at all times, been the most sublime feeling of which man was capable. From this proceeds another impulse, an overwhelming desire and an irresistible longing to divine the deeper relations of these forces. And it is this that gives us faith. The method of procedure may vary in different individuals, but the goal is the same. Some, possessed of deep feeling, see only eternal wisdom in everything that to them seems incomprehensible; and in child-like faith they apply to it the most reverent and affectionate name. Others earnestly endeavor to observe the various laws and forces of nature and reverently to comprehend their relations to each other. These latter are the men of science. The men of faith and the men of science essentially do the same thing. Their attitude is very modest; for both recognize that all individual



life, both subjective and objective, is very insignificant as compared with the great All. He who could, when struck by lightning, stop to think, 'I am going to my Heavenly Father,' and he who could at such a moment intently observe the cessation of the activity of his nervous system, both would have a blissful end."

Thus spoke the Professor. The Crown-Inspector looked at the speaker in astonishment, suspecting him to be one of that new class of apostles who at that time made their appearance in various parts, and traveled around the country preaching to the people. Frau Rollmaus stood reverently with folded hands, occasionally nodding her assent. Presently she nudged the proprietor, whispering:

"That belongs to the philosophy of which we spoke."

The proprietor did not answer, but listened with bowed head. He never turned her eyes from the speaker; his observations sounded strange to her, and excited a secret uneasiness, she knew not why. But she could say nothing against them, for the spring of genial life that issued from this noble soul entranced her. The choice of words, the new thoughts, the noble expression of his countenance, captivated her irresistibly.

The party returned to their resting place on the height; the sun sank behind the hills, and the soft evening glow gilded first the tips of the heather, then rose above their heads to the tops of the trees, and purple shadows covered the ground, the stems of the trees, and the distant prospect. But small light clouds of gold and purple floated in the heaven above, till there also the glowing colors faded into rosy twilight; the mist rose from the depths below, and the colors of the earth and the heavens died away into a uniform gray.

Long did the party gaze on the changing lights of the evening. At last the proprietor called for the contents of the basket; the children were busy unpacking and passing the cold meats to the assembled circle. The proprietor poured out the wine and pledged his guests and rejoiced in the fine evening. At a sign from his father, Hans ran into the thicket and fetched some pine torches.

"There is no danger to-day," said the proprietor to Herr Rollmaus whilst lighting the torches.

The children pressed forward to be torch-bearers, but only Hans was trusted with this honorable office. The gentlemen carried the others.

Slowly did the procession wind down the hill-path; the torches threw a glaring light on copse and stones, and on the faces of the men, which in the curves of the road were lighted up with a glow like the rising moon, and again disappeared in the darkness. Frau Rollmaus had endeavored several times to draw the other illustrious stranger into conversation; she now at last succeeded, when in a bad part of the road. She began:

"What your friend said was very good, for it was

very instructive. He is right; one ought to struggle against the powers and seek the connecting link. But I assure you it is difficult for a woman. For Rollmaus, who is the first power of nature for me, has a hatred of principles; he is always for doing everything according to his own ideas, and, as an independent man, he has a right to do so; but he is not very much in favor of science, and even as regards a piano for the children I have trouble with him. But I seek after principles and powers, and what is called the connecting link; and I read what I can, for one likes to know what passes in the world, and to raise oneself above ordinary people. But often one does not understand a thing even when read twice; and when it is at last understood it may have become obsolete and no longer worth anything, and so one might as well give up all researches."

"You should not do that," exclaimed the Doctor; "there is always a secret pleasure in knowing something."

"Not so," continued the lady; "if I lived in town I would devote myself to learning, but in the country one is too much isolated, and there is the housekeeping and one's husband, who is hard to please. You have no idea what a good farmer he is. Rollmaus, hold your torch aside, all the smoke blows in the Doctor's face."

Rollmaus turned the torch away grumbling. His wife drew close to him, seized his arm and whispered to him: "Before we go away you must invite these gentlemen to visit us; it is the right thing to do."

"He is a hedge priest," answered the husband, peevishly.

"For God's sake, Rollmaus, don't do anything foolish; above all, do not blaspheme," she continued, pressing his arm; "he is mentioned in the encyclopedia."

"In yours?" asked the husband.

"In the one here," replied the wife, "which amounts to the same thing."

"There are many things in books that are of less value than others which are not there," said the husband, unmoved.

"I am not to be put off in that way. You will not confute me by that," replied the wife. "I tell you that he is a man of renown, and propriety demands that we should take that into consideration, and you know that so far as propriety is concerned."

"Only be quiet," said Rollmaus, soothingly. "I say nothing to the contrary, if needs be; I have eaten many a sour apple on your account."

"On my account!" cried the wife, offended. "Have I been unreasonable—am I a tyrant—am I an Eve who has stood with her husband under the tree, with loose hair, and not even a chemise? Will you compare yourself and me with such a state of things?"

"No," said Rollmaus. "Only be content; you know how we get on together."



"Don't you see that I am right," replied the wife, soothed. "Believe me, I know also how others get on together, and I tell you I have a presentiment that something is brewing."

"What is brewing?" asked Rollmaus.

"Something between Ilse and the Professor."

"The devil there is!" exclaimed Herr Rollmaus, with more vivacity than he had shown the whole day.

"Quiet, Rollmaus, you will be heard; do not lose all discretion."

Ilse had remained behind; she led her youngest brother, who was tired. The Professor chivalrously lingered by her. He pointed out to her how well the procession looked; the torches, like large glow-worms, in front; behind, the sharply-illuminated figures, and the flickering of the gleaming light upon the trunks and green branches of the trees. Ilse listened to him long in silence. At last she said: "The most charming thing of the day has been your speaking so kindly to our neighbor. When she was seated by you, I felt troubled in spirit, for I thought it would annoy you to listen to the inappropriate questions of our friend, and it all at once struck me that with respect to us also you must use constant consideration, and that tormented me. But when I saw that you so kindly recognized the good that is to be found in our friend, I felt that it would cost you no great effort of self-command to hold intercourse with us simple folk."

"Dear young lady," exclaimed the Professor, anxiously, "I hope you are convinced that I only said to the worthy lady what came sincerely from my heart?"

"I know it," said Ilse, with vivacity, "and the honest soul felt it also herself—she has been quieter and more cheerful than usual the whole day—and therefore I thank you. Yes, from my heart," she added, softly.

Praise from the lips of a beloved one is not among the least of the pleasures that a man enjoys. The Professor looked beaming with happiness at his neighbor, who now in the darkness followed her brother at a quicker pace. He did not venture to break the silence; the pure hearts of both were revealed, and, without speaking a word, they became conscious of a stream of warm feeling passing from one to the other.

"The pedantic habit of reading," began the Professor, at last, "makes it easier, perhaps, for one to gather from a different style of life what may be serviceable to one's own; for there is something estimable about every mode of life, although it may be somewhat veiled by certain peculiarities."

"We are commanded to love our neighbors," said Ilse, "and we endeavor to do so; but when one finds that this love is given so cheerfully and nobly, it is touching; and when one sees such feeling displayed, it becomes an example and elevates the heart. Come, Franz," she said, turning to her brother, "it is not far

from home." But Franz stumbled, and, half asleep, declared that his legs ached.

"Up with you, little man," said the Professor; "let me carry you."

Ilse, distressed, tried to prevent it. "I cannot allow that; it is only sleep that makes him so lazy."

"Only till we reach the valley," said the Professor, raising the child on his shoulder. Franz clasped his arms round the Professor's neck, and, clinging close to him, was soon fast asleep. When they came to a steep turn of the road, the Professor offered the arm which was free to his companion; but she refused, only supporting herself a little with his offered hand. Thus hand in hand they walked down the last part of the hill into the valley, neither of them speaking a word. When they arrived at the bottom, Ilse gently withdrew her hand, and he released it without word or pressure; but these few minutes comprised for both a world of happy feelings.

"Come down, Franz," said Ilse, taking her sleeping brother from the arm of her friend. She bent down to the little one to encourage him, and they went on to join the party, who were waiting for them at the brook.

The carriage of the Crown-Inspector drew up. The parting greetings of his wife were very verbose, and her representations had mitigated his obstinacy, so that, cap in hand, he made up his mind to take, with tolerable decorum, a bite of the aforementioned sour apple. He approached the literary gentlemen, and asked them to grant him also the pleasure of a visit; and even the utterance of these friendly words had a softening influence on his honest spirit. He now held out his hand to them, and receiving a hearty shake, he began to think that the strangers were not in reality so bad as might be supposed. The proprietor accompanied his guests to the carriage, Hans passed the handbox in, and the two country-gentlemen, as they bade each other good night, watched the starting of the two horses with the eyes of connoisseurs.

## CHAPTER VII.

### NEW HOSTILITIES.

Whilst a bright female form was intervening between the Professor and the Doctor, fate decreed that a new feud should arise between the two neighboring houses in the city. It happened thus:

Herr Hahn had availed himself of the absence of his son to beautify his property. His garden ran in a point up to the park, and he had bethought him much how this corner might be turned to good account; for the little elevation which he had thrown up there, and planted with roses, seemed unsatisfactory. He determined, therefore, to erect a water-proof summer-house for such visitors as were not inclined in bad weather to resort to the house. Everything had been wisely considered before the departure of his son. The following day



he caused a slender wooden structure to be erected, with small windows toward the street, and above, instead of a roof, a platform with benches; the laths of the roof projected boldly into the air, over the wooden walls and garden palings. The thing looked well; but when Herr Hahn, with hearty satisfaction, led his wife up the small side steps on to the platform, and the plump lady, not anticipating anything wrong, sat down on the airy bench, and from thence looked with admiration on the world beneath her, it became apparent that the passengers in the street passed directly under her, and the sky above them was darkened to whoever passed along the fence by the plumage of the great bird that, perched on her high seat, turned her back to the street. Before a quarter of an hour, therefore, had passed, such sharp remarks were heard that the inoffensive Frau Hahn was on the point of weeping, and declared to her lord, with unwonted energy, that she would never again allow herself to be treated as a hen, or ascend the platform any more. The family frame of mind was not improved either by the part that Herr Hummel had taken, for he had stood by the fence of his neighbor's garden during this exhibition of Frau Hahn, and had laughed insultingly at the vile speeches of the people.

Hahn, however, after a short struggle between pride and discretion, listened to the voice of his better self, removed the benches and the platform, and erected over the summer-house a beautiful Chinese roof; but on the projections of this roof he hung small bells, which sounded softly when the wind rose. This idea would have been a decided improvement; but, alas! the wickedness of man gave no rest to this work of art; for the urchins in the street diverted themselves by keeping some of the bells in movement by means of long switches. On the first night, therefore, the neighborhood was awakened from its slumbers by a concert of many bells.

It appeared to Herr Hahn in his sleep that winter was come, and that a merry party of sleighs were passing round his house; he listened, and indignantly discovered that his own bells had been excited into activity. He hastened into the garden in his night-dress, and called out, angrily:

"Who is there?"

In a moment the ringing ceased, deep silence and peaceful quiet reigned around. He went up to the garden-house, and looked at his bells, which might be seen swinging under the darkened sky; but all around no one was to be discovered. He went back to his bed; but scarcely had he laid himself down when the noise began again, quick and loud, as if pealing for a Christmas gift. Again he rushed out of the house, and again the noise ceased; but when he raised himself above the railing and looked around, he saw in the garden opposite the broad figure of Herr Hummel standing by the hedge, and heard a threatening voice call out:

"What crazy fancy is this?"

"It is inexplicable, Herr Hummel," exclaimed Herr Hahn, across the street, in a conciliatory tone.

"Nothing is inexplicable," cried out Herr Hummel, "but the mischievous folly of hanging bells in the open air over a public street."

"I resent your attack," called out Herr Hahn, deeply wounded. "I have a right to hang up what I like on my own piece of ground."

Now there began a conflict of opposing views across the street. There Hummel's bass, here Hahn's sharp voice, which gradually rose into a counter-tenor; both figures in long night-dresses, divided by the street and railings, but like two heroes of antiquity fighting one another with strong language. If one failed to perceive the wild effect given to Herr Hahn by the red color of his night dress, yet he might be seen towering upon the height near his Chinese temple, raising his arm imposingly from the misty horizon; but Herr Hummel stood in the darkness, overshadowed by the wild vine.

"I will have you before the police court, because you disturb the repose of the citizens," cried Herr Hummel at last, but felt the small hand of his wife at his back, who seized him by his night dress, turned him round, and gently entreated him not to make a scene.

"And I will inquire before the court who gave you a right to heap abuse upon me across the street," called out Herr Hahn, likewise in the act of retiring, for amidst the noise of the fight he had occasionally heard the soft words, "Come back, Hahn," and seen his wife behind him wringing her hands. But he was not in a disposition to abandon the field of battle.

"A light and ladder here," he exclaimed, "I will find out this shameful trick."

The ladder and lanterns speedily made their appearance, brought by the frightened maid-servant. Herr Hahn mounted up to his bells, and sought long in vain; at last he discovered some one had contrived to unite the separate bells by a plait of horse-hair, and thus had rung them from the outside by one rope.

This wild night was followed by a dreary morning.

"Go to the man across the street, Gabriel," said Herr Hummel, "and ask if, for the sake of peace, he is willing to take away the bells immediately. I require my sleep, and I will not suffer that this night rabble should be allured to my house, make inroads upon the fence, steal my plums and break into my factory. This man, by his ringing, calls together all the rogues of the neighborhood."

Gabriel replied: "I will go over there for the sake of peace; but only if I may say with civility what I think fit."

"With civility?" repeated Hummel, winking slyly at his confidant. "You do not understand your own inter-



est. So fine an opportunity of making yourself important will not occur soon again, and it would be a pity to let it escape you. But I foresee, Gabriel, that, civil or not, we shall be unable to deal with the man. He's malicious and obstinate and bitter. He is a bulldog, Gabriel. There, you have his character."

Gabriel proceeded to poor Herr Hahn, who sat, still suffering, before his untasted breakfast, and looked suspiciously at the inmate of the hostile house.

"I come only to inquire," began Gabriel, adroitly, "whether you may, perhaps, have received intelligence through your son of my master?"

"None," answered Herr Hahn, sorrowfully; "there are times when everything goes wrong, dear Gabriel."

"Yes, what a roughish trick was played last night," said Gabriel, pityingly.

Herr Hahn sprang up.

"He called me insane and a coxcomb. Am I to put up with that? I, a man of business, and in my own garden! As regards the plaything, you may be right enough; one must not put too much confidence in men. But now my honor is touched, and I tell you the bells shall remain, and I shall place a watchman there every night."

In vain did Gabriel speak rationally to him. Herr Hahn was inexorable, and called after him again as he was leaving:

"Tell him we shall meet again in court."

Accordingly he went to his attorney, and insisted upon bringing a suit on account of abusive language at night.

"Good," said Hummel, when Gabriel returned from his fruitless mission. "These people compel me to take measures of security for myself. I will take care that no strange horse-hair shall be attached to my house. When the rogues sound the bells there, the dogs shall bark here. Measure for measure, Gabriel."

He went gloomily to his factory, and paced about wildly. His bookkeeper, who appeared to be a much-oppressed man, because he never could obtain his rights from Herr Hummel, thought it was his duty, and that it was a fitting time to speak.

"The ideas of A. C. Hahn are absurd; all the world finds fault with them."

But the speech did him no good.

"What do this man's ideas signify to you?" cried Hummel. "Are you the householder, and are you or I head of this business? If I choose to be angry it is my affair and not yours. His new clerk, Knips, wears his hair in frizzy curls, and perfumes himself with eau de cologne; you may make fun of him about that, this is your right. As to what concerns the rest of the world, your blame of this man's devices is worth about as much as the twittering of the sparrow on the house-top; and if he should every day hang a peal of bells on his shoul-

ders and go thus into the counting-house, he would still remain a respectable citizen so far as this street rabble is concerned. Only, as regards myself, it is another thing. I am his neighbor day and night, and if he gets into trouble I also have to suffer. For the rest, I object to all calumnies on my fellow-men. What must be said is my business alone, without associates; remember that."

A few evenings later, Gabriel was standing before the house-door, looking up to the heavens and watching whether a small black cloud, which was slowly floating past, would cover the face of the moon. Just as this took place, and the street and both houses lay in darkness, a carriage drove up to the house, and the voice of the master called out: "Is all well?"

"All well," answered Gabriel, and unbuttoned the apron.

Herr Hummel descended heavily, and behind him was heard an angry growl.

"What have you got there in the dark?" asked Gabriel, with much curiosity, putting his hands into the carriage, but he quickly withdrew them. "Will the rough beast bite?"

"Yes, I hope so," replied Herr Hummel. "I mean it to bite. I have brought some watch-dogs against the bell-ringers."

He pulled out with a rope two indistinct figures, which rushed about yelping hoarsely, circled round Gabriel's legs viciously, and drew the cord round him like a noose.

"Need you bring such a multitude?" cried out Gabriel; "there are two of them."

The clouds had passed away, and the moon shone upon both dogs.

"They are strange beasts, Herr Hummel; they are a curious race—evidently mongrels," he continued, in a depreciating tone; "hardly medium size, thick in form, and with shaggy hair; the bristles hang over the muzzle like mustachios. The mother must have been a poodle, the father a spitz; there must also have been some relationship with the pug, and the great-grandfather must have been a terrier. A fine production, Herr Hummel, and somewhat rare. How did you come by these moon-calves?"

"That was a peculiar accident. I could not obtain a dog in the village to-day; but when I was returning through the wood, the horses shied and would not move on. While the coachman was handling them, I suddenly perceived near the carriage a large black man, standing as if he had sprung from the ground. He was holding the two dogs by a rope, and laughed jeeringly at the abuse of the coachman. 'What are you?' I called out to him; 'where are you taking the dogs?'

"To him who wishes to have them,' said the black man.

"Lift them into the carriage," said I.



"I do nothing," growled out the stranger; 'you must fetch them.'

"I descended and asked, 'What do you ask for them?'"

"Nothing," said the man.

"The matter appeared suspicious to me, but I thought one might at least try them. I lifted the beasts into the carriage; they were quiet as lambs. 'What do you call the dogs?' I cried out from the carriage.

"Bräuhahn and Goslar," said the man, laughing like a devil."

"Those are not dogs' names, Herr Hummel," interposed Gabriel, shaking his head.

"I said that to the man, and he replied, 'They have not been baptised.' 'But the rope is yours,' I said; and only think, Gabriel, this black fellow answered me: 'Keep it; you may hang yourself with it.' I wished to throw the dogs out of the carriage again, but the man had vanished into the wood like a will-o'-the-wisp."

"That is a bad story," said Gabriel, much troubled; "these dogs have been reared in no Christian house. And will you really keep such hobgoblins?"

"I will make the attempt," said Herr Hummel. "After all, a dog is a dog."

"Be careful, Herr Hummel, there is something mysterious in the beasts."

"Nonsense!"

"They are monsters," continued Gabriel, counting on his fingers; "first, they have not the names of earthly dogs; secondly, they are offered without money; thirdly, no man knows what these beasts will eat."

"As to their appetite, you will not have to wait long," replied the master of the house.

Gabriel drew a bit of bread out of his pocket, and the dogs snapped at it. "In this respect they are of the right species," he said, a little tranquilized; "but what are they to be called in your house?"

"The Bräuhahn I shall call Fighthahn," replied Herr Hummel; "and in my family no dog shall be called Goslar. I cannot bear this drink." He cast a hostile look at the neighboring house. "Other people have such stuff fetched every day across the street, but that is no reason why I should suffer such a word in my household. The black shall from this day forth be called *Fighthahn* and the red *Spitehahn*—that is settled.

"But, Herr Hummel, those are clearly offensive names," exclaimed Gabriel; "that will make the matter worse."

"That is my affair," said Herr Hummel, decidedly. "At night they shall remain in the yard; they must guard the house."

"So long as they do but preserve their bodies," said Gabriel, warningly; "but this kind come and vanish as they please—not as we wish."

"Yet they are not of the devil," rejoined Herr Hummel, laughing.

"Who speaks of the devil?" replied Gabriel, quickly. "There is no devil—that the Professor will never allow; but of dogs we have cases."

So saying, Gabriel took the animals into the hall. Herr Hummel called out into the room: "Good evening, Phillippine; here, I have brought you something."

Frau Hummel came to the door with a light, and looked astonished at the present, which whined at her feet. This humility disposed the lady to regard them with benevolence.

"But they are frightful," she said, dubiously, as the red and the black sat down on each side of her, wagging their tails and looking up at her from under their shaggy eyebrows. "And why are there two?"

"They are not intended for exhibition," returned Herr Hummel in a pacifying tone; "they are country stock—one is only a deputy."

After this presentation they were carried off to a shed. Gabriel once more tried their capacity of eating and drinking; they showed themselves thoroughly satisfactory in this respect, though not distinguished dogs as regards personal beauty, and Gabriel went to his room free from anxiety.

When the clock struck ten, and the gate which divided the court-yard from the street was closed, Herr Hummel went down himself to the dogs' shed in order to initiate these new watchers in their calling. He was much astonished, on opening the door, to find that they did not require any encouraging words from him—both creatures rushed between his legs out into the yard. As if driven by an invisible whip, they coursed round the house and factory without ceasing—always together, and never silent. Hitherto they had been depressed and quiet; now, either on account of the good food they had devoured or because their night watch had come, they became so noisy that even Herr Hummel drew back in astonishment. Their hoarse short bark overpowered the horn of the night watchman and the call of their master, who wished to recommend moderation to them. They chased wildly round the court incessantly, and a continuous yelping accompanied their stormy race. The windows of the house were opened.

"This will be a stormy night, Herr Hummel," cried out Gabriel.

"But, Henry, this is insupportable," cried out his wife from her bedroom.

"It is only their first joy," said Herr Hummel, consolingly, and withdrawing into the house.

But this view appeared to be an error. Throughout the whole night the barking of the dogs sounded from the court-yard. In the houses of the neighborhood, also, shutters were thrown open, and loud words of reproach addressed to Herr Hummel. The following morning he arose in a state of uncertainty. Even his own sound sleep had been disturbed by the reproaches



of his wife, who now sat at breakfast angry and afflicted with a headache. When he entered the court-yard, and gathered from his people the complaints they had heard from the neighbors, even he hesitated for a moment whether he should keep the dogs as an addition to his household.

Ill luck would have it that just at this moment the porter of Herr Hahn entered the court-yard, and with defiant mien announced that Herr Hahn must insist upon Herr Hummel removing this outrageous barking, or he should be obliged to seek redress at the police court.

This attack of his opponent decided the inward struggle of Herr Hummel.

"If I can bear the barking of my dogs, other people can do so. The bells play there and the dogs sing here, and if any one wishes to hear my views before the police court he will hear enough."

He returned into the house and stepped up with dignity to his suffering wife. "You are my wife, Phillippine; you are a clever woman, and I will yield to you in everything wherein you show a rational will."

"Shall two dogs come between you and me?" asked the wife, with faltering voice.

"Never," replied Herr Hummel; "there must be domestic peace, and I am sorry that you have a headache, and to please you I would remove the beasts. But I have come into contact again with this coxcomb. For the second time he threatens me with justice and police. My honor is at stake, and I can no longer give in. Be a good wife, Phillippine, and try to bear it some nights with cotton in your ears, till the dogs have got accustomed to their work."

"Henry," replied the wife, wearily, "I have never doubted your heart; but your character is rough, and the voices of the dogs are too horrible. Can you, in order to establish your will, see your wife suffer, and become seriously ill, from sleeplessness? Will you, in order to maintain your character, sacrifice peace with the neighborhood?"

"I do not desire that you should be ill, but I will not give away the dogs," replied Herr Hummel, seizing his felt hat, and going to the factory with heavy steps.

If Herr Hummel indulged in the hope that he had ended the domestic struggle as conqueror, he was greatly in error. There was still another power in his home, who opened the campaign in a different manner. When Hummel approached his desk in his little counting-house, he saw near the inkstand a nosegay of flowers. Attached to the pink ribbon hung a note, which was sealed with a forget-me-not, and addressed—"To my dear Father."

"That is my bright-eyed girl," he murmured, and opening the note read the following lines:

"My dear pa, good morrow!  
The dogs cause great sorrow,  
They are not delightful;  
Their bark is just frightful;  
Their ardor and sanguinity  
Disturb the vicinity.  
For the sake of our neighborhood,  
Be noble, generous and good."

Hummel laughed so heartily that the work in the factory stopped, and every one was amazed at his good humor. Then he marked the note with the date of its reception, put it in his pocket-book, and after the examination of the letters which arrived, he betook himself into the garden. He looked at his little daughter sprinkling the beds with her watering-pot, and his heart swelled with a father's pride. With what grace she turned and bent, and how her dark locks hung round the blooming face, and how actively she raised and swung the watering-pot; and, on perceiving him, when she put it down and held her finger threateningly at him, he was quite enchanted.

"Verses again," he called out to her, "I have received Number Nine."

"And you will be my good papa," cried Laura, hastening toward him and stroking his chin; "send them away."

"Look you, child," said the father, composedly. "I have already spoken to your mother about it, and I have already explained to her why I cannot dispose of them. Now, I cannot do, to please you, what I have not yielded to your mother; that would be contrary to all family rule. Respect your mother, little girl."

"You are a hard-hearted father," replied the daughter, pouting; "and see, you are unjust in this affair."

"Oh, oh!" cried the father, "is that the way you approach me?"

"What harm does that ringing of the bells up there do to us? The little summer-house is pretty, and when we sit in the garden in the evening, and there is a breeze, and the bells tinkle gently, that sounds well—it is like Mozart's Magic Flute."

"There is no opera here," cried Hummel, angrily, "but public streets; and when my little dogs bark you can equally have your theatrical ideas, and imagine that you are in the wolf's den—in the Freischütz."

"No, my father," answered the daughter, eagerly, "you are unjust to these people; for you wish to play them a trick, and that vexes me to my heart's core. It is not worthy of my father."

"Yet you must bear it," replied Hummel, doggedly, "for this is a quarrel between men. Police regulations settle such affairs, and your verses are altogether out of place. And as regards the names, it is possible that other words like Adolar, Ingomar, and Marquis Posa, might sound better to you women. But this is no



reason for me; my names are practical. As regards flowers and books, I will do much to please you, but in the matter of dogs I cannot take poetry into consideration." So saying, he turned his back upon his daughter, in order to avoid protracting the dispute.

Laura, however, hastened to her mother's room, and the ladies took counsel together.

"The noise was had enough," complained Laura, "but the names are terrible. I cannot use these words, and you ought not to suffer our people to do so, either."

"Dear child," answered the experienced mother, "one has to pass through much in this world which is unpleasant, but what most grieves me is that which is done against the dignity of women in their own houses. I shall say no more on the subject. I agree with you that both the names by which the dogs are called are an insult to our neighbor. But if your father were to discover that behind his back we called them Phœbus and Azor, it would make matters worse."

"No one at least must give utterance to the other names who cares for my friendship," said Laura, decidedly, and entered into the court-yard.

Gabriel was employing his leisure in making observations on the new comers. He was frequently attracted to the dogs' shed in order to establish the certainty of the earthly nature of the strangers.

"What is your opinion?" asked Laura, approaching him.

"I have my opinion," answered the servant, peering into the interior of the shed, "namely, that there is something suspicious about them. Did you remark the song of those ravens the other night? No real dog barks like that; they whine and moan and occasionally groan and speak like little children. They eat like other dogs, but their mode of life is unusual. See, now they cower down, as if they had been struck on the mouth because the sun shines on them. And then, dear young lady, the name!"

Laura looked with curiosity at the beasts.

"We will alter the names secretly, Gabriel; this one shall only be called Ruddy."

"That would certainly be better; it would at least not be an insult to Herr Hahn, but only to the tenant of the basement."

"What do you mean by that?"

"The porter who lives out there is called Ruddy."

"Then," decided Laura, "the red monster shall from henceforth be named The Other; our people shall call him Andres.\* Tell this to the workmen in the factory."

"Andres!" replied Gabriel. "The name will just suit him. It will be too much honor to him."

Thus were kind hearts occupied in preventing the bad signification of the name; but in vain, for, as Laura

had correctly noted in her diary, when the ball of mischief has been thrown amongst men, it mercilessly hits the good as well as the bad. The dog was supplied with the most inoffensive name that ever was given; but through a wonderful complication of circumstances, which bid defiance to all human sagacity, it happened that Herr Hahn himself bore the name of Andres. Thus the double name of the animal became a double affront to the neighboring house, and bad and good intentions mingled together in a thick, black soup of hatred.

Early in the morning Herr Hummel appeared at the door, and defiantly, like Ajax, called the two dogs by their hostile names. The porter, Ruddy, heard the call in the cellar, hastened to his master's room, and informed him of this horrible affront. Frau Hahn endeavored not to believe the thing, and maintained that they should, at least, wait for the confirmation of it. This confirmation did not fail to come; for at noonday Gabriel opened the door of the place where the dogs were confined, and made the creatures come out for a quarter of an hour's sunning in the garden. Laura, who was sitting among her flowers, and was just looking out for her secret ideal—a famous singer, who, with his glossy black hair and military gait was just passing by—determined, like a courageous maiden, not to peer after her favorite through the foliage of the vine arbor, and turned toward the dogs. In order to accustom the red one to his new name, she enticed him with a bit of cake, and called him several times by the unfortunate name, "Andres." At the same moment, Dorchen rushed to Frau Hahn, saying: "It is true; now even Fräulein Laura calls it by the Christian name of our master."

Frau Hahn stepped to the window much shocked, and herself heard the name of her dear husband. She retreated quickly, for this insult of her neighbor's brought tears into her eyes, and she sought for her pocket-handkerchief to wipe them away unperceived by her maid. Madame Hahn was a good woman, calm and agreeable, with a tendency to plumpness and an inclination quietly to do anything for the sake of peace. But this heartlessness of the daughter roused her anger. She instantly fetched her cloak from the closet, and went with the utmost determination across the street to the garden of the hostile neighbors.

(To be continued.)

The richest genius, like the most fertile soil, when uncultivated, shoots up into the rankest weeds; and, instead of vines and olives for the pleasure and use of man, produces to its slothful owner the most abundant crop of poisons.—*Hume*.

From nature we possess no defect that could not become a virtue, and no virtue that could not become a fault.—*Goethe*.

\*Andres means "the other."



## BOOKS RECEIVED.

[THE OPEN COURT acknowledges the receipt of all books, but the editor cannot pledge himself to have all reviewed.]

PHYSIOGRAPHY. By W. Mawer, F. G. S. London: John Marshall & Co.  
GEOLOGICAL EVIDENCES OF EVOLUTION. By Angelo Heilprin. Philadelphia: By the Author.

THE MAN WHO WAS GUILTY. By Flora Haines Longhead. Boston: Houghton, Mifflin & Co.

WINTER. From the Journal of Henry D. Thoreau. Boston: Houghton, Mifflin & Co.

A HOME STUDY IN NATURAL HISTORY. By Dr. Felix P. Oswald. Cincinnati.

THOMAS PAINE; THE AUTHOR-HERO OF THE REVOLUTION. By Juliet H. Severance. Chicago: The Alarm Company.

THE STUDY OF RELIGION. By James Martineau. Two vols. London: Henry Frowde. New York: MacMillan & Co.

A DISSERTATION ON THEISM. By Hy. Truro Bray, M. A., LL.D. Boonville, Mo.: By the Author.

THE TRIAL OF THE JUDGMENT: A REVIEW OF THE ANARCHIST CASE. By Gen. M. M. Trumbull. Chicago: Health and Home Publishing Company.

ANNUAL REPORT OF THE TRUSTEES OF THE PERKINS INSTITUTION. Boston: Wright & Potter Printing Company.

KINDERGARTEN FOR THE BLIND. Boston: Rand-Avery Company.

Somebody asked a foreigner to take venison. "No," said he, "I never eat venison."—"Oh!," said his friend, "I wonder at your saying so; if venison is not better than mutton why does venison cost so much more?"—"Vv? I tell you, vv; in dis verit de people always prefers vat is deer to vat is sheep."

A great eater, going to a dinner party, remarked to his entertainer that he had lost his appetite: "God be praised," said the host, "I only hope none of the company has found it."

## JUST PUBLISHED.

La philosophie religieuse en Angleterre depuis Locke jusqu'à nos jours, par Ludovic Carrau, Directeur des conférences de philosophie à la Faculté des Lettres de Paris (1 vol. in 8° de la bibliothèque de philosophie contemporaine. Paris: Félix Alcan, 1888.

L'auteur s'est proposé dans ce livre d'étudier les principales doctrines religieuses qui se sont succédées dans la philosophie anglaise depuis Locke et Clarke. Neuf chapitres sont ainsi consacrés à Berkeley, à la morale et à l'analogie de Butler, aux Déistes anglais, à David Hume, à Hamilton, à Stuart Mill, à Mr. Herbert Spencer, à Mr. Abbot.

L'exposition est exacte et complète, la discussion pénétrante. L'auteur, tout en se maintenant dans son rôle d'historien et de critique, ne s'interdit pas d'avoir une opinion motivée sur des problèmes dont aucun homme qui pense ne saurait se désintéresser. Il combat le scepticisme religieux de Hume, aussi bien que l'évolutionisme et la théorie de l'inconnaissable de Spencer, et dans une conclusion courte mais substantielle, il expose les raisons philosophiques qu'il croit avoir d'admettre un Dieu créateur et personnel; le style est toujours clair et permet de suivre aisément la pensée; sans rien dissimuler de la difficulté des problèmes, il en rend l'accès possible à ceux-là même qui n'ont pas fait des questions philosophiques l'objet exclusif de leurs études.

## + REVUE PHILOSOPHIQUE. +

NO. DE JANVIER, 1888.

TH. RIBOT, - - - - - Directeur.

A. ESPINAS, l'évolution mentale chez les animaux.

F. PAULHAN, l'associationnisme et l'a synthèse psychique. ADAM, Pascal et Descartes.

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EDWARD C. HEGELER, President.

PUBLISHED BY THE OPEN COURT PUBLISHING CO.

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**THE FOOL IN THE DRAMA,** . . . . . FRANZ HELBIG.  
*In Nos. 22 and 23.*

Franz Helbig, an able scholar, whose attainments as an author on historical subjects, especially in the domain of the history of civilization, are much appreciated, contrasts in this article folly and wisdom and shows the philosophical significance of the fool as a character on the stage.

**EVOLUTION AND IDEALISM,** . . . . . PROF. E. D. COPE.  
*In No. 23.*

A very able statement of Positivism and scientific inquiry versus the imagination of a wrong Idealism. Prof. Cope treats this subject with perspicuity and strength.

**THE SOCIAL PROBLEM AND THE CHURCH,** . . . . . MORRISON I. SWIFT.  
*In No. 23.*

The author of this article asks the Churches to boldly face the problem of the day, and expects them to do their duty in the field of social reform.

**THE ETHICS OF ECONOMICS,** . . . . . GEO. M. GOULD.  
*In Nos. 24, 25 and 26.*

It will save us much distress if in political economy we begin with ethics instead of being driven to it by painful experience. Labor is the life-blood of man, and the ethical significance of money is that it represents labor. The author inculcates that labor and money paid for labor should be equivalent.

**THE PROCESS OF PROGRESS,** . . . . . RUDOLF WEYLER.  
*In No. 24.*

The problem of death treated in connection with the progress of evolution.

**LANGUAGE,** . . . . . E. P. POWELL.  
*In Nos. 24 and 26.*

This essay of the American scholar should be compared with the essays by Max Müller. The study of language is of interest to the lawyer as well as the clergyman, the scientist as well as the teacher.

**REFLEX MOTIONS,** . . . . . G. H. SCHNEIDER.  
*In No. 24.*

G. H. Schneider's book, *Der Menschliche Wille*, is one of the most prominent delineations of modern psychological research. The essay on Reflex Motion contains the fundamental propositions of physiological psychology.

**THE VALUE OF DOUBT IN THE STUDY OF HISTORY,** . . . . . GEN. M. M. TRUMBULL.  
*In No. 25.*

It will be interesting to the veterans of 1861-65 to read the article of their famous comrade. The essay of General Trumbull may serve as an introduction to the many war accounts and memoirs. Teachers can read the article with their students as an instructive lesson for historical research.

**DETERMINISM VERSUS INDETERMINISM,** . . . . . PROF. GEORG VON GIZYCKI.  
*In Nos. 25 and 26.*

George Von Gizycki is Professor of Philosophy at the University of Berlin. His name is well known beyond the boundary of his country. The problem of the Freedom of the Will has perhaps never been treated in a clearer and more forcible manner.

**TO ARMS, AND** . . . . . }  
**THE POETS OF LIBERTY AND LABOR,** . . . . . } WHEELBARROW.  
*In Nos. 22 and 26.*

Wheelbarrow has rapidly gained a well deserved reputation as an author. He treats the social question from the standpoint of a laborer and speaks from his own experience. He unites in his writings Old Saxon simplicity, sincerity of heart, the truthfulness of honesty and warm sympathy for justice and right.

**THE SIMPLICITY OF LANGUAGE,** . . . . . }  
**THE IDENTITY OF LANGUAGE AND THOUGHT,** . . . . . }  
**PERSONA,** . . . . . } MAX MÜLLER.  
*In Nos. 9-11, 12-14 and 19-20.*

Max Müller's essays must not only be read, they must be studied; and we should be very grateful that the eminent philologist uses so simple language. In spite of all the simplicity of Max Müller's style, it takes much careful study to fathom the depth of his thoughts.

Gustav Freytag's novel, *The Lost Manuscript*, commences in No. 22. Reference is made to the significance of this famous work of fiction in Editorial Notes of No. 22 and No. 26.

THE OPEN COURT's definition of Religion is found in a letter of Mr. E. C. Hegeler, published in No. 25, and in the editorial of No. 24, "Monism and Religion."

The editorial of No. 26, "Anarchism and Socialism," is an impartial and objective review of the social question.

The editorial of No. 25, "Evolution and Immortality," grapples with the problems of death and immortality in their mutual relation and proposes their solution by the evolutionary doctrine, as viewed from the standpoint of Monism.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 28. (Vol. II.—2.)

CHICAGO, MARCH 8, 1888.

Three Dollars per Year.  
Single Copies, 10 cts.

## APHORISMS.

BY HENRY BYRON.

Religion is man's consciousness of his relation to the All. The truth that underlies all religions is manifested in love toward God and man.

Denominational differences are rifts in the oneness of humanity, clefts in the all-unifying religion of mankind.

As the sun is reflected in the tiniest dew-drop while giving light unto a world, so the grandeur of the All, while pervading the whole universe, is mirrored in every human heart.

God made man after his own likeness and after his own likeness hath every man made his God.

Many define the soul as the unintelligible in ourselves and God as the unintelligible in the universe. Others say, "There is no God, man has no soul." Need we add that both are wrong?

Man stands on earth, yet towers into the heavens. In him creator and creation meet. He is born of the world, yet is the son of God; every man is a demi-god, and the myth of divinity in man is immutable, universal and eternal.

There are sparks of divinity in every man's nature; yet, like the sparks of flint, they must be *struck* into life.

The conscience of a nation finds utterance in the words of its greatest men; and as there is no man that has not at some time violated the dictates of his conscience, so there is no nation that hath not at some time misjudged and execrated, persecuted and executed its legislators, its prophets, its benefactors and its teachers.

Jesus taught love and peace. He preached self-examination, severity unto oneself, indulgence toward others, hate of sin, pardon of sinners. He taught trust in God, incessant efforts to gather lasting treasures, and to scorn what is perishable. His prayer was no humiliation of self before a deity, but the discourse of a son with his father. He denounced injustice and hypocrisy, yet fell himself a victim to the blindness of the masses and the villainy of the wicked.

Men of mediocrity can espouse with ardor only the cause of *self*, never that of humanity. Selfishness is the atmosphere of their existence; in the realm of the ideal their vitality becomes benumbed.

Our mission in life is like unto the office of a Vestal Virgin, to keep perpetually burning within us the holy flame of divinity.

Of all the battles of our life the struggle with the evil within us is the fiercest and most fraught with danger; the victory of the good over the evil in us is the most glorious we can ever win.

The approval of the world is not always to be gained, but our own approval is always within reach. The world sees the results of our actions; we alone know their motives.

By stumbling and falling we come to know the path through life.

Be cautious in thy way through the fields of life; learn to know the poisonous plants and to find the useful and the good.

Every season of the year, every period of life, has its own peculiar and matchless charms; one can never decide which should be preferred.

There is a center of attraction in life, as well as in matter; how gleefully we approach it, how reluctantly we leave it!

There are events in our lives which are not fairly understood until we live them over again in our memories; just as in a thoughtful book there are passages that need repeated perusal for a thorough understanding.

To teach—to scatter seeds in youthful minds without ever being able to conjecture the abundance of blessings that may grow therefrom unto humanity—what a noble calling!

Not those that are called teachers teach the best; the words of the wise and the deeds of the noble are the educators of humanity.

What the world calls education is chiefly mere training; discipline makes skillful, culture elevates.

The better we are, the more satisfaction our conscience gives; the more temperate we are, the less trouble our body causes; and the more we reduce our wants, the greater our independence!

How enviable is the lot of a tree! Again and again spring returns, until its life is ended.

Wickedness is folly; the wicked man is an insane man; he injures himself as well as others.



Have nothing to conceal and you will enjoy the inestimable right of being always sincere.

Truth is like the sun; whatever darkens it is but a passing cloud.

If a truth declines in one part of the world it rises like the sun in another.

If always we speak the truth, our words will always bear an imprint that gives them currency.

Truth hits the mark; falsehood rebounds and strikes the marksman.

Ordinary men are like shallow cisterns. What little intellect and feeling they possess is never renewed. It is stale and soon exhausted. Great men are like deep wells. Their intellect and feeling are fed from never-failing sources; are ever fresh and inexhaustible.

With the multitude the shrewd pass for wise men, the wise for fools.

The words of a wise man are like unto jewels; the expert alone can appreciate their worth; the ignorant leave them unnoticed.

The truly great learn most from themselves and from the book of nature.

To the wise man the present is always the climax of life, whence past and future are alike visible.

However long the life of a wise man may be, 'tis yet short, and however short, it has yet been long enough.

Happiness lies within certain limits. In the ardor of pursuit, man easily overleaps these limits, and fancying himself still approaching his goal he is but getting farther and farther away from it.

Not only the world but we ourselves are too prone to judge of our virtues and capacities according as we succeed or fail.

A fool wants always to have people about him. It is quite natural that he should grow weary of his own company.

The primary conditions of health and happiness are within us; we have only to conform to them the secondary and accidental influences. With our health, we generally trust all to nature and too little to ourselves. With our happiness, we are too little mindful of the essential within, and pursue too eagerly the non-essential without.

We often impute to chance what is but the natural consequence of our own conduct.

Could we weigh the happiness of every man in the same scales, we should find that after all the gifts of fortune are not so unequally distributed.

The fountain-head of happiness is contentment of heart, which springs from the ascendancy of the good over the evil in us.

The best, the noblest deeds of man have been inspired by love—by love for a human soul or by love for mankind.

The determining principle in the spiritual is the same as that in the physical world: Love, the law of attraction.

## NATIONAL TAXATION.

BY AN ANTI-MONOPOLIST.

### Part II.

The national government of this country, as a matter of course, must receive from the American people a revenue amply sufficient to perform its duties under the Constitution and laws of the United States. Our American Constitution, as amended in consequence of our late civil war, speaks of the revenue of the government as follows:

"Representatives and direct taxes shall be apportioned among the several states which may be included within this Union according to their respective numbers, counting the whole number of persons in each state and excluding Indians not taxed."

"All bills for raising revenue shall originate in the House of Representatives; but the Senate may propose or concur with amendments as on other bills."

"The Congress shall have power to lay and collect taxes, duties, imposts, and excises to pay the debts and provide for the common defense and general welfare of the United States; but all duties, imposts and excises shall be uniform throughout the United States."

"No capitation or other direct tax shall be laid, unless in proportion to the census or enumeration herein before directed to be taken."

"No tax or duty shall be laid on articles exported from any state."

"No preference shall be given by any regulation of commerce or revenue to the ports of one state over those of another; nor shall vessels bound to or from one state be obliged to enter, clear or pay duties in another."

"No state shall, without the consent of the Congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws; and the net produce of all duties and imposts laid by any state on imports or exports, shall be for the use of the Treasury of the United States; and all such laws shall be subject to the revision and control of Congress."

Both the present protective feature of the customs system and the whole internal revenue system of the United States are results and relics of our late civil war. They are not only unjust and illogical, but also dangerous to the material welfare of the American people, because they may create, as at present, a surplus, derived from them, in the Treasury of the United States, that is, large sums of the people's money uselessly locked up in the vaults of that office. The sums comprised in



such a surplus, for which the government has no use under existing laws, are prevented from circulating among the people for business purposes, and thus render money scarce in this country. A change, therefore, in our national taxation seems to be and is plainly necessary. Which shall it be? Can it not be a radical one?

From the clauses quoted above, it is to be seen that our American Constitution leaves it, within certain limits, to the option of Congress to determine the ways and means by which the revenue necessary for the support of our national government and for meeting its legitimate obligations, shall be raised. The customs, therefore, and the internal revenue may be completely abolished. Yet, which other tax or taxes shall take their places? It would not do to tax real and personal property also for national purposes, as they are taxed for State or local purposes, because they are not uniformly assessed, for taxation, in the several states and territories of the Union.

In the United States all taxes being paid in money, the most correct, natural and logical national tax of this country, seems to be one relating to the money or income of every American citizen or resident alien; namely, an *individual income tax*. Such a tax would be in full harmony with the Constitutional provisions quoted above.

Under such a tax every head of a family or other person in the United States having an income of his or her own, should, by law, be bound annually to pay a certain percentage of his or her *net* income, reaching a certain sum, for the support of our national government. From this tax all persons should be exempt, not having a *net* annual income of five hundred dollars, or of one thousand dollars, or of any other amount Congress might see fit to fix for this purpose. A man's *net* income consists of what he acquires by his business and from other sources, after deduction of all his business expenditures and of his state and local taxes. Personal or family expenses would, of course, be included in and could not be deducted from a *net* taxable income.

The percentage referred to should be uniform in all parts of the Union, for every taxpayer and for every dollar taxed. Thus, if, for instance, a net annual income of one thousand dollars would pay a tax of one dollar, a net annual income of two thousand dollars should pay a tax of two dollars, a net annual income of three thousand dollars a tax of three dollars, and so on. This would be a simple income-tax, increasing in arithmetical progression, and taxing every dollar of taxable incomes, high or low, alike. This would be the only just kind of an income-tax, under our American principle of equal rights for all, in all matters of public concern. A man with a larger net income claims and enjoys the protection of the government for it to a larger extent than a man with a smaller net income. For this reason, if the two incomes be taxable, the former should pay more

tax than the latter, but on a strictly and absolutely equal, uniform basis. A so-called graduated income-tax, increasing at a higher rate than the one stated and taxing a dollar of a higher taxable income higher than a dollar of a lower taxable income, would be a flagrant violation of the principle referred to and utterly wrong, robbing the few for the benefit of the many. It would punish men for being wealthy, which would be the silliest thing in the world. There are, it is true, men in this country with colossal fortunes, exceeding the bounds of reason and common sense. Yet, for this fact, not strictly those men are responsible or to be blamed, but our perverse American political economy. Those men are rather to be praised for their shrewdness, although not always for their philanthropy. The simple income-tax suggested, together with other measures to be mentioned presently, might somewhat affect those colossal fortunes, yet it could and would not eradicate the present Cæsars in the United States, who own their wealth legitimately. It might, however, help to prevent the growth of new ones. The richest men of this country being the railroad magnates, a few words may be devoted to them.

The railroads of this country, as a matter of course, are most excellent things and very useful to the American people. Yet, the private corporations owning them, have built them for the sole purpose of making money. For this reason, all the property in this country belonging to railroad companies, because it enjoys exactly the same local public protection as all other private property, should also be taxed as that other private property both for state or territorial or for municipal purposes. To such taxation also all unimproved land should be subject, held by railroad companies. Under the two fundamental laws of this country, the Declaration of Independence, which by the categorical dictum of a competent law-giving body has created the United States as a political division of the earth, and which is proclaiming the principle of equal rights for all, in all matters of public concern; and the Constitution of the United States, decreeing a Republican form of government for every state of the Union, no such state has a right to forego its paramount prerogative, namely that of taxation, in favor of private corporations, in the shape of railroad companies, and at the expense of all its other inhabitants.

Under the two fundamental laws named and particularly on account of its limited powers under the Constitution, Congress has no right to aid private companies in the construction of railroads by land grants and by public credit, although it has repeatedly exercised the *might* to do so. Any legitimate business, based upon private means, is, of course, commendable. Yet, no fair-minded man in this country will ever apply for government aid in his private business, because he is not entitled to it and would be unjustly benefited by



the same, at the expense of all his American fellow-citizens. If any man or any number of men would have a just claim to be aided by Congress, in a private undertaking, everybody in this country would have such a claim, namely, to be aided by Congress in his private business. Would not this be the greatest nonsense? If a railroad becomes necessary or desirable in any part of the Union, it should be built strictly with private means. Yet, if government means be employed for its construction, it should also be constructed in the name of and for the government, that is, the whole American people, and not in the name and for the account of private parties.

The Constitution of the United States contains two clauses relating to this subject. They read:

The Congress shall have power \* \* \* to regulate commerce with foreign nations, and among the several states, and with the Indian tribes; \* \* \* to establish post-offices and post-roads.

In pursuance of the former provision Congress has passed an interstate commerce law, being in operation now by means of a commission.

Under the latter provision Congress has plainly the power, in the name and for the account of the whole American people to build railroads, to be used as post-roads. It has also the power to grant, free of charge, the right of way over the public domain of the American people, to private parties, for the construction of railroads, to be used as post-roads. Yet, it has not the power, by land grants and by subsidies or financial help, to aid private corporations in the construction of railroads, serving in the main for the transportation of freight and of passengers, and only incidentally for that of the mail. Justice, fairness, and common sense admit no other interpretation of the passage quoted of our American Constitution. According to its preamble, this fundamental law by the following clause: "The congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States," plainly does not mean that Congress shall have power to donate the public domain of the American people to private corporations for speculative purposes. Congress, however, as mentioned before, has extensively aided railroad companies in the wrong manner stated, thus enabling a number of self-loving men to grow immensely rich at the expense of all their American fellow-citizens. Such companies not having been entitled to the government aid they have received, the small item of the right of way excepted, they are also not entitled to enjoy its profits in an unrestricted manner. In reality, to the full extent of that unjust aid, the whole American people may be considered as partners in such railroads. For this reason Congress doubtless has the right and power to control every railroad of this country that has been constructed

with government aid, as to the passenger fare and the freight rates to be charged by the corporation owning the road, and perhaps also as to the minimum wages to be paid by the company to their employees.

The foregoing principles, applying to railroads, with equal force and justice also apply to other private concerns, having been aided or seeking to be aided by the government. However excellent things and however useful to the American people they may be, yet Congress, under the fundamental laws of this country, has no right to aid private companies engaged in such concerns otherwise than by granting them, free of charge, the right of way over the public domain of the American people, provided such aid be of any use to such companies and of advantage to our national government. Under our American Constitution, Congress has absolutely no power to aid such private concerns by general land grants or by subsidies. Yet, after they have been established by private means, our national government is, of course, entitled to patronize them freely. Telegraph lines, to a certain extent, answering the same purpose as post-roads, Congress doubtless has the constitutional power to establish such lines in the name and at the expense of the American people. So much on this subject.

For the collection of the income-tax suggested, every person of age in the United States, having an income of his or her own, should, by law, be compelled at a stated time, perhaps between the first day of April and the thirtieth day of June, to declare, under oath, his or her *net* income during the preceding calendar year. If the person referred to be a minor, or otherwise legally incapacitated to do this himself, the taking of the oath and the paying of his income-tax would have to be attended to by his guardian. As a kind of perfunctory act, the percentage of all taxable net incomes, to be levied as income-tax, would have to be fixed by Congress, annually, as soon as possible after its meeting, in December, according to the requirements of the government for the current fiscal year (ascertained by the sum total of the appropriations, including those relating to the public debt made by Congress during its preceding session), and according to the total amount of taxable net incomes reported by the national revenue officers throughout the country, charged with the collection of the income-tax. This tax should then be collected perhaps during the time from the date, when the percentage referred to would have been fixed, to the thirty-first day of March. If such a tax be adopted for this country, Congress, to avoid embarrassments of the United States Treasury, would have to see to it, that during the first six or perhaps nine months of the fiscal year, in which this tax would be collected for the first time, the necessary revenue of the National government would be raised yet in the old way.



In fact, according to the plan suggested, one-half, or another sufficient portion, of the income-tax collected during a fiscal year, would have to be used by our national government during the first six months of the next fiscal year. Such a course, as to the time of fixing the rate of the income-tax and of collecting and disbursing this tax, would become necessary, because every other year there is a short session of Congress, ending on the fourth day of March. This state of affairs, however, could be easily changed, if, by a Constitutional amendment, both the term of a Congress and that of the Presidency and Vice-Presidency of the United States would commence on the first day of July, instead of on the fourth day of March. In case of the adoption of such a constitutional amendment, all the taxable net incomes, throughout the United States, could be annually ascertained, as suggested, from the first day of January to the thirty-first day of March, and if Congress would timely make its appropriations for the succeeding fiscal year, it could also annually fix the required percentage of all the taxable net incomes, for the income-tax, by the thirtieth day of June, the close of the fiscal year. Then the collection of this tax for the new fiscal year could be commenced on the first day of July and be ended by the thirty-first day of December.

Special items of income in the United States Treasury, for instance those from the sale of public lands, would have to be annually deducted from the sum total of the income-tax required for government expenses. A fitting annual period for making this deduction could be easily enacted by Congress. On account of possible business failures of tax-payers between the time when the net incomes would be declared under oath and the time when the income-tax would be collected, Congress, in its discretion, would have to fix the percentage referred to somewhat higher than it would have to be according to a strict arithmetical division. That our national government might not be embarrassed in its operations, for want of funds, caused by the non-payment of such an income-tax, Congress would have to pass the strictest laws for enforcing its prompt payment. Any person's frivolous and willful refusal to state a net income under oath or affirmation, or to pay the income-tax, might be punished even with imprisonment.

The abolition of our American customs system and the adoption of a national income-tax might perhaps not benefit some overgrown manufacturing establishments in this country. Yet, these measures would doubtless call forth numberless smaller manufacturing establishments—perhaps on a co-operative plan—in different parts of the Union, which fact would be a blessing to the whole American people.

There are those who say that a national income-tax would cause a good deal of perjury in this country. Yet, it is *the* American tax that, if permanently estab-

lished, would soon render the American people truthful as to its payment. The truthfulness of a free nation can be affected only by erroneous legislation, in favor of classes of the people, but never by a just, sound, and uniform tax for the support of a government of the people, by the people and for the people, as our national government, and also every American state and municipal government, happily is this.

Both the interest on and the bonds of our American public debt being payable in gold, a correct solution of the silver question would doubtless have to precede the adoption of a national income-tax for this country. Correct silver dollars, being on a par with gold coin as to their bullion value, would cause gold coin to circulate as freely in this country as silver coin, and thus enable our national government to derive from a national income-tax the necessary amount of gold coin for meeting its gold obligations.

As George Washington, the "Father of his Country," "first in war, first in peace, and first in the hearts of his countrymen," in his Farewell Address, truly says, "honesty is always the best policy," both in the public and private life of the American people.

#### THE SIGNIFICANCE OF MATTER AND FORCE IN THEIR RELATION TO GRAVITY.

Every conception of the world which is not consistent must, in the end, prove dualistic. If it pretends to be monistic, its logical consequence, if developed to the utmost, will lead to dualism. It is generally recognized that spiritualism is dualistic, and the advocates of supernaturalism frankly confess their dualism. But also materialism is just as dualistic as its antagonistic view. If the world is to be explained from dead matter, the force of logical argument leads us to assume some unknown force beyond or behind matter, and materialism will change into agnosticism.

One of the most important questions is that of the cause of gravity. Two solutions are possible: Either the force of attraction is immanent, it lies within—or it is external, it lies without matter. Either matter *attracts* matter, or matter *is pushed* toward matter. Either matter is in self-motion, or it *is* moved. If matter is dead we are obliged to resort to the latter solution. But if we accept the former solution, we must consider self-motion as an ultimate property of matter. If matter is inert and deprived of force we must assume that there is some other substance besides matter. The world then consists first of matter and secondly of ether—or whatever the pushing *agens* outside of the dead matter may be called.

The solution of the problem of gravity is not yet definitely settled; but we wish to inform our readers of the present state of the subject and shall therefore present two essays on the ultimate properties of matter, one of which is published in this number.

Le Sage's theory is perhaps the most consistent the-



ory' of a kinetic or mechanical explanation, which almost seems satisfactory from the standpoint of materialism. Wilhelm Stoss thinks that Le Sage's theory is much strengthened by Falb's hypothesis of earthquakes; and as he presents and states the problem so clearly and so correctly in an essay published in the *Gegenwart*, a translation of it was procured for THE OPEN COURT. In the next number of THE OPEN COURT we shall publish an essay by J. G. Vogt, which treats the subject from another standpoint, which he calls "Monism of Reality" (*Real-Monismus*).

We reserve our judgment, as we believe that the problem is not yet mature. Many other questions must be answered before we can, with any hope of success, approach the problem of gravity, and we present the attempts made to explain the cause of gravity as what they are, ingenious hypotheses. P. C.

#### FALB'S THEORY OF EARTHQUAKES AND LE SAGE'S THEORY OF GRAVITATION.

BY WILHELM STOSS.

*Translated from the German in the Gegenwart by F. W. Morton.*

The recognition which Falb's theory of earthquakes has met is largely due to his conclusions that the origin of earthquakes is attributable to cosmical causes. That the sun is for our planet the source of existence and life, and, likewise, that the phenomena of ebb and tide are principally expressions for lunar influence, there can be no doubt. It immediately follows that a similar influence is exerted on the molten mass in the interior of the earth. It is the proof of such an influence that Falb has sought to deduce beyond a question in his theory of earthquakes.

It is a peculiarity of human inquiry that whenever a forward step has been taken in the knowledge of things, a question is raised as to the new facts revealed. When we have answered one "Why" another immediately suggests itself. Herein lies the deep truth of Haller's words: "Into nature's mystery of mysteries no human spirit can press." For instance, if we regard earthquakes as but a manifestation of the attractive power which the sun and moon exert upon the earth, the new question immediately arises: How can the sun and moon act in this way upon the earth? What is the original cause of this action? This question is in no wise a new one. At times an answer to it has been attempted in different ways; and then again, as lying beyond the scope of human inquiry, no answer has been ventured.

There are two theories of nature which directly oppose each other, the dynamic and the atomic. The former explains the reciprocal action between the spheres by a force simply, without the intervention of a material medium; the latter maintains the existence of such a medium, which fills the universe and produces the reciprocal action of the spheres by transmission of motion. Furthermore, opinions have differed widely in

respect to the nature of this medium. These systems are designed rather to explain attraction on earth than universal attraction.

From Leucippus and Democritus to the present day one atomic system after another has sprung into being. Leucippus, Democritus and Plutarch assumed, as the original cause of attraction, vast, simple rotatory motions of the atoms. To this assumption reverted, in a later day, Kepler, Torricelli, Gassendi, Descartes, Huygens and others. Malebranche and Euler, on the other hand, interposed small rotatory motions within the great; Jean Bernoulli assumed light as a medium; Gautier, electricity; Micheli, magnetism; Wallis, Le Cat, De la Rive and others, common air; and so forth. Newton did not apply himself earnestly to the task of investigating the causes of universal attraction. "*Nam multa me movent, ut nonnihil suspicer* \* \* \* *quibus viribus cognitis philosophi hactenus naturam frustra tentarunt*," says he in the preface to his "Principia." The first to extend this theory to universal attraction, and especially to the attraction between sun, earth and moon, was Le Sage. Of him there is but little known, since only a few fragments of his numerous manuscripts have been published. This explains why he is so little known to kindred modern scientists, many of whom have entirely erroneous notions of his theory. Take up the latest theories of Schramm, Thomsen, Zöllner, Von Dellingshausen, Isenkræhe and others; either the theory of Le Sage is not mentioned at all, or only casually and incorrectly.

Le Sage was born on July 23, 1724, at Geneva, and died there on November 9, 1803. He studied medicine and natural science at Basel and Paris, and then lived to the end of his life in his quiet retreat at Geneva. There, too, in the *Bibliothèque Publique* his manuscripts are preserved; they are in the same order as Le Sage with his own hands arranged and left them. They are filed away in fifty large wooden boxes, and comprise, besides a few connected discourses and loose leaves, little paper sacks with numbers and titles. The sacks contain playing-cards on which Le Sage had jotted down the results of his investigations. The greatest part of the manuscripts are devoted to his atomic theory of mechanical physics. The gist of his theory, the system of *corpuscules ultramondaines*, is briefly as follows:

In limitless empty space imagine an infinite number of atoms, which are separated from one another by large intervals. These atoms move in straight lines and in all directions with uniform and enormous rapidity. They pervade all space, far beyond the limits of the visible universe; they come and go, as it were, from one world to another. Take any one point in space. At every moment a multitude of atoms will come to it from all directions and again pass away from it in all directions,



so that for the moment every point of space may be regarded as the center of innumerable atoms. The atoms are uniform and homogeneous, hard and *inelastic*—completely isolated material points. Their form is spherical. The rapidity of the aggregate atoms, moreover, is equal to the density of the stream formed by them. This is extremely slight, since the atoms are so small, relatively to their mean distances from one another, that two atoms very rarely can meet and disturb the uniformity of their motions. In comparison with any known rapidity, their rapidity is infinitely great, so that the atoms, in spite of the enormous distances between them, form an unbroken, continuous stream. A body plunged in this will remain immovable, since the atoms acting with equal force on all sides will keep it in equilibrium. If a second body be placed at a certain distance from the first, the two will approach each other, because the one serves the other as a sort of shield, and the atoms whose action is no longer exerted on the opposing sides produce a constant motion.

Every particle of matter in space must thus be taken as a central point for enormous spheres that are filled with atoms. Matter must be regarded as so porous that, for instance, the earth can only stop an insignificant portion of the atoms which penetrate it. Moreover, no atoms can lodge upon a solid body. For, since most of the atoms do not strike the solid body in a perpendicular, but in a slanting direction, the atom loses every time as much of its perpendicular velocity as it imparts to the body; and on account of its perfect hardness it glances off at a tangent from spherical masses.

Of the atoms whose central point forms a solid, the same number penetrate all surfaces of the spheres described concentrically about it. These spherical surfaces are proportional to the squares of the radii, therefore to the squares of the distances of these surfaces from the mass-center. The density of the stream of atoms at the different distances, or the effects of the impacts with which the atoms strike the bodies they meet about the mass-center, are therefore inversely proportional to the squares of the distances. Furthermore, taking into consideration that all bodies are extremely porous, so much so, indeed, that the atoms are infinitely small in comparison with the pores, we can readily see that only an extremely small number of atoms will be checked; and of these the number that affect the first and the last layers will be about the same. Their action, then, on a body or a sphere is proportional to its mass.

Thus Newton's law, *a priori*, appears as a consequence of this system. Kepler's laws may be proved a necessary result of Newton's. Moreover, even the laws of Galileo may be deduced from it. As the atoms all possess infinitely great and uniform rapidities, so also they follow each other at exactly equal periods. By the impact of an atom a body receives a certain velocity in

a definite direction; the next atom following from the same direction produces the same effect as the preceding; and so, successively with all atoms following in the same line. The effect, being the result of an infinitely rapid succession of exactly equal impacts, may be regarded as continuous. It follows, therefore, that the successive velocities must be proportional to the impacts, and hence comes directly this law which Galileo first indirectly deduced from experiments: The distances are to each other as the squares of the times.

Now let us look at the connection between this theory of Le Sage's and Falb's theory of earthquakes. Falb calls the times at which earthquakes are under especially favorable constellations tide-factors. He distinguishes six such tide-factors, to wit:

1. The greatest proximity of the earth to the sun, on the 1st of January. At this time the attraction of the sun is the greatest; while on the 1st of July, the time of greatest remoteness, it is the least.

2. The greatest proximity to the moon. At this position of the moon, which it attains once during its revolution of twenty-seven days, its attraction is likewise the strongest.

3. Conjunction and opposition of the moon—that is, the times of new and full moon. At these times moon, earth and sun, or more accurately their projections, form nearly a straight line, so that their powers of attraction are united; while at the time of the quadrants, i. e. at the time of the first and last quarters, their powers of attraction have a tendency to destroy each other.

4. Eclipses of sun and moon. The three planets form exactly a straight line, and the attractive powers of the sun and moon are combined. This factor comprehends the preceding.

5. The position of the sun over the equator whereby its attractive power is augmented by the centrifugal force of the earth, revolving upon its axis. The centrifugal force at the equator is greatest; at the poles it is zero.

6. The position of the moon over the equator.

The more tide-factors unite their influences, the greater is the probability of an earthquake occurring.

According to Le Sage, the atoms converge toward the center of the earth. They become attenuated, and consequently a constant falling of the moon toward the earth takes place. This is in reality the case, since otherwise the moon would fly off at a tangent. Now, the atoms which keep impelling the moon toward the earth become so attenuated that the part of the earth lying under the moon is assailed by a smaller number of atoms. The consequence of this will be that the fluid masses on and in the earth will have a tendency to rise toward the moon. The molten mass in the interior of the earth will press with the greatest force against the hard crust of the earth in the direction of the moon.



If the molten mass finds channels and cavities that have been formed by the gradual hardening of the earth's crust, it will rise in the former, pour into the latter and exert such a powerful pressure on the overlying layer that a concussion will be felt on the surface of the earth. The stronger the attractive power acts upon the mass, the more easily can it rise and find its way to a volcanic cavity. This attractive power, however, is commensurate with the attenuation of the atoms. If this be increased either by the moon or by the sun, i. e. if tide-factors 3 and 4 come into play, an upheaval of the earth's crust is the more probable. Further, since the atoms converge toward the center of the earth, the greater the proximity of this center to the moon or sun (tide-factors 1 and 2) the greater will be the attenuation of the atoms. It easily follows that these attenuations are inversely proportional to the squares of the distances of the moon and sun from the earth.

The strengthening influence of factors 5 and 6 is rather of terrestrial than of cosmical origin.

Le Sage's theory assumes as the cause of attraction between sun, earth and moon, not a force of attraction, an *actio in distans*, but a pushing material, a *vis a tergo*. This theory is an hypothesis yet to be proven. Should it meet favor at a later day, as Falb's theory of earthquakes now does, still the last "Why" would not be answered. The question as to the cause of atomic motion and the principle of motion itself would require its new and probably never-to-be-given answer.

#### THE HISTORICAL DEVELOPMENT OF THE FAMILY.

BY TH. ACHELIS.

*Translated from the German by F. W. Morton.*

Under the comprehensive perspective of all the peoples of the earth, furnished by modern ethnology, one of the most interesting problems of history is the development of the family. The early idyllic conception of a patriarchal, though often very oppressive, community of life; the broader social organization of the tribe in the coherence of several families; and, finally, the political union, variously described as to particulars but always conceived as an ideal consummation;—all these must go. Such a theory of political formation, based as it is on very limited data, cannot meet the stubborn facts which ethnology in ever greater measure is bringing to light.

As so often happens, not only in life but in the history of science, those things which were formerly derided as silly fables which should have been utterly rejected—the so-called absurd reports of otherwise well-accredited authors—have received through the unquestionable finds and discoveries of modern travelers and observers a surprising and often not over-welcome *restitutio in integrum*. For the accomplishment of this

there was also the exceedingly effective methodical means, which, however, is only to be used with care, by which E. Tylor has already reached so many important conclusions—the survivals, the characteristic remains, which clearly show in the usages and customs of nations the complete differentiation of any one idea together with the entire morphological structure of its development. As an illustrative example, taken at random, we may cite the well-known custom of the Roman father respecting his newly-born child; the significant act of taking it up from the threshold is nothing more than a later, unintelligible relic of the old right of exposure and killing in barbaric times.

As has been said, at the beginning of social life (for it is only with this and not with a completely-formed, separate existence of man that ethnology has to do) the family and marriage did not exist in our sense and our moral estimation; rather, there was a strange state of affairs, wholly opposed to our current notions. This was the original peaceful association of families, which is found among all peoples of the earth at the same primitive stages—an apparently chaotic and disunited horde of individuals, incapable of observing rights, and resting wholly on community of descent or blood unity. Allegiance to the band or union was conditioned by the most natural of all bonds—descent from the same tribal mother. Every one lacking this qualification stood outside the protecting organization, and, being a stranger, was *eo ipso* an enemy. This entire union was represented by the central position of woman. There was no recognition of individual rights or duties; but each, without further question, was held answerable for the others. Thus, for instance, a murder was not always revenged on the murderer himself, but on some member of the tribe to which he belonged. Indeed, so strong was the thought of consanguinity that in all questions of inheritance the person of the man steps wholly into the background.

In order to form a tolerably accurate idea of this, nothing is more instructive than a glance at the organization of the Malays in respect to property, as it has heretofore been studied, especially by Dutch scholars. According to their view no real relationship exists between the father and his children, but only between him and his brothers and sisters. He is not, in our sense of the term, the father and adviser of his offspring; he but belongs, after his marriage as before it, to the family circle in which he was born. Here is his real home; hither comes his inheritance; while his children, wholly independent of him, grow up and acquire their rights in the sphere of the mother. (v. Post, *Grundlagen des Rechts*, Oldenburg, 1884, Seite 92 ff.)

According to the view hitherto accepted, the family formed the foundation of society, in extension from tribe to nation, and so forth; and at its head, in the Aryan



civilization, appeared the *paterfamilias*, philologically explained as "protector." Now, when, with ethnological insight, we reach the primary foundations, the family, as such, falls out entirely; and the *femina finis familie* rises in the dim distance to grace the family as its *materfamilias*. We must at the outset obviate a misconception. The question, in this period of female autocracy, is, of course, not so much one of woman's political supremacy—an impossibility for those prehistoric times of rude culture—but of the organization of those apparently chaotic masses as they came together in an association of relatives. This resulted exclusively or, at least, largely in matriarchal principles; in that the tribal mother likewise represented the original source of the whole social organization. Consequently the entire question of inheritance (in so far as one may speak of its early beginnings in a communistic body) regulated itself according to consanguinity on the female side.

Nevertheless, many proofs may be found of the comparatively high estimation in which woman was held in the most different nations. Indians, Africans, Malays, and other tribes are zealous even exclusively to accord this precedence to her in many religious ceremonies; and Nachtigal relates of the scattered Solimans of North Africa that in spite of the depressing influence of Mohammedanism the women enjoy a certain political influence. (v. Lippert, *Culturgeschichte*, II, 92 ff.)

Now, as long as the children belong to the mother, they are subject in matters of property to the jurisdiction of one of her relatives, usually her brother, as their natural protector; and even though they are grown up they likewise belong to the mother's family. Thus, as Bastian remarks, it may happen that in case of war the child fights against his own father. This possibility, moreover, has a wide and, morally speaking, highly significant meaning, in that it brings out sharply the great difference between our moral perceptions and the corresponding views of these primordial stages.

Further, the current view, according to the patriarchal foundation of the family, makes the feelings that prevail between parents and children, and especially between a father and his offspring, take root in every normally formed individual with a certainty at once irresistible and ideal. This, on the impartial witness of comparative ethnology, is wrong. This feeling, which to us seems so self-evident ("*natura nobis insita*," as the Stoic would say), is rather a comparatively late product of a long and, for the most part, prehistoric development—a development which first took its deep moral significance when the patriarch laid the foundation of the ethical view of the world by emphasizing the immediate relation of all the family members to their representative head.

The ethical view to us seems the only right and natural one. How the transformation was brought

about in individual instances is not yet clearly known; but at all events the firmer consolidation of habits after the adoption of a permanent residence had no inconsiderable part in it. The destruction of the original family assemblies, consequent upon this, resulted in the district organization. Especially significant, moreover, was the purchase of the wife, who thereby lost her former sphere and was subjected to the authority of the husband.

If we judge of this process strictly according to our moral code we cannot fail, in this disgraceful treatment of woman as a chattel in political intercourse, to perceive a shocking crudeness of feeling, and that, too, though we bear in mind the slow moral progress instituted by the patriarchal organization. For us of German education, and especially in our youth, this course has robbed the idyllic scenes of the Old Testament of their pleasure. Even though these subjective emotions spring from a comparatively broad ground, as, for instance, national consciousness, it is well not to treat them without further question as objective criticisms, as absolute moral principles of unconditioned and universal application and necessity. From the historical point of view this development appears as an advance in ethical progress. No age with its ethical ideas should be judged from the standpoint of the present, but should be estimated by its own conditions.

#### TO DEATH.\*

Refuge from envy's fierce pursuing,  
And limit to our self-undoing;  
Pruner of Time, that lopp'st decay  
And fruit-defeating growth away;  
Vintner, that from his purpled vine  
Crushest for heaven's sacred wine,—  
E'en when the sweetest cup were quaffing,  
When life within the heart is laughing,  
When our great peace doth seem a river  
That well might fill the full Forever,  
When the rich day makes Hope a debtor,  
And Wish himself can wish no better,  
E'en then thy offices appear  
More worthy welcome than a tear;  
For well we know our golden hours  
Are deep indebted to thy powers;  
No light of life, nor smile benign,  
But half its luminance is thine;  
No gift from heaven our hands receive,  
But thou dost help the heavens to give.  
Thy sateless hunger feeds our bliss,  
Our sun would pale thy shade to miss.

Men contend with one another in punching and kicking; but no one shows any emulation in the pursuit of virtue.—*Diogenes*.

\* Selected from *Poems by David Atwood Wasson*. Boston: Lee & Shepard; 1888.



## BOOK REVIEWS.

## A DISSERTATION ON THEISM OR ON THE KNOWABILITY OF GOD.

By Henry Truro Bray, M. A., LL.D., Rector of Christ Church, Boonville, Md.

This pamphlet of about ninety pages contains more than its unpretentious appearance gives reason to expect. It is written in a scholarly manner, and is teeming with well-applied quotations from the ancient Grecians, the sacred books of the East, the early fathers, and from the foremost leaders of modern thought and science. The time and care spent in collecting these numerous passages must have been enormous.

The conclusions the author arrives at remind one of the theism of Mr. F. E. Abbot. Mr. Bray's theism is not the belief of old—a dogmatical belief in a supernatural Deity. He proposes as follows:

There is an Infinite Intelligence whom we call God.

Man is by nature a religious being.

All religions have in them a nucleus of truth.

No religion is exclusively true, or founded upon an exclusively divine Revelation.

From the last two pages we quote the following sentence:

"First the egg, then the helpless young crying for succor, then the fledgling trying to fly, then the full-grown bird soaring aloft in the vaulted blue—this is the history of all religious growth. It shows the expansion of the soul-atom from the state of unconscious heavenly tendency to the dignity of a soul flooded with divine light, of a heart beating with divine energy. Evolution proves that the Man of Nazareth must have come in due time, when the old religions had lost their virtue for the time and place, the intellect having outgrown them. It proves that the teaching of Christ is true, because in essential agreement with the teachings of all great moral and religious reformers or instructors. As the old form of a religion, its shell becomes too narrow, then by the strivings of the intellect after higher knowledge, and the yearnings of the soul after God, there comes, according to the laws of Evolution, that knowledge of God which is needful for the time and place. Nature is not at a loss in supplying the things wanting, whether for the soul or the body. The principles of Evolution, when applied to the development of religions, discover to us the fact that religion, everywhere present, everywhere moving the soul by similar impulses onward to the same common end, is a natural result of human development under the laws of nature, which is another name for the universally present and uniformly operating Deity, and, therefore, Evolution proves that religions in their essence must be true."

It is a pity that the quotations from the Greek are printed in English letters. It makes their reading troublesome to the scholar, whose eye is accustomed to see Greek words in Greek characters, whereas it can afford no help whatever to one unacquainted with the language. We would advise the author, in an eventual future edition, to have these quotations put into Greek characters entirely and to affix English translations of them. It would greatly increase the value of the book, as it would become more available for the scholar as well as for the public at large.

## NOTES.

The American Folk-Lore Society, which has for its object the study of Folk-Lore in general, and in particular the collection and publication of the Folk-Lore of North America, was recently organized at Cambridge, Mass. The study of Folk-Lore received its first impetus at the time when Jacob Grimm first made his collection of German *Märchen*. The American Folk-Lore Society numbers among its members the most prominent scholars

in all parts of the country. The society has made arrangements with Messrs. Houghton, Mifflin & Co. to publish a quarterly journal, which will no doubt be full of instructive matter. As both the usefulness and the success of such a society depends very largely on the number of its members, and the membership fee is only three dollars a year, it is to be hoped that all who in any way feel interested in the study of folk-lore will join the American Folk-Lore Society. Address W. W. Newell, Cambridge, Mass.

Those of our readers interested in the subject will readily recall the delightful article entitled, "Folk-Lore Studies," by Mr. L. J. Vance, in Nos. 22 and 23 of THE OPEN COURT.

The translation of Goethe's poem on page 782 in THE OPEN COURT is the revision of an unpublished version by N. F., which reads as follows:

"Nature's secret depths,"

Phyllistine, sayest thou,

"From mortal mind

Must ever be concealed?"

To me and to my kind

Repeat this not. We trow,

Where'er we are, that we

In nature's depths must be.

"Thrice-blessed he to whom

Even her outer shell's revealed."

For sixty years I've heard this o'er and o'er,

And in my secret soul condemned it heartily,

Say unto myself repeatedly:

Nature gladly gives of all her store;

She knows not kernel, knows not shell,

For she is all in one; but thou,

Examine thou thine own self well,

To see whether kernel thou be'st, or shell.

We commend the following editorial from a recent number of *The Medical and Surgical Reporter* of Philadelphia to the attention of our readers, feeling sure that it will meet with their approval:

## QUACK ADVERTISEMENTS IN RELIGIOUS NEWSPAPERS.

From time to time medical men and medical journals have protested against the prostitution of the columns of religious newspapers to the use of advertisers of quack nostrums. This protest does not apply to temperately worded representations of what seems to have been accomplished by, or what may reasonably be expected of, a remedy or device for the cure of disease or injury. But it does apply to advertisements couched in language which bears the stamp of falsehood on its face, or which is of such a character as to arouse suspicion in the mind of an intelligent man, uninfluenced by a money consideration.

The editors of most religious journals are, as a rule, men of so much intelligence that they will hardly attribute to trade-jealousy alone the objection which medical men have to the recommendation of "sure cures" for baldness, fits, rupture, consumption, and so on, to persons who are apt to regard their religious teachers as safe guides in matters of health or disease; and who are not sufficiently familiar with the subtleties of the newspaper business to distinguish between the responsibilities of the editor and those of the publisher. As a fact, most readers of periodicals have the impression that the advertisements they contain are endorsed by the editor. Advertisers rely upon this fact; and we cannot understand the casuistry which satisfies the conscience of a man who edits a periodical, ostensibly devoted to religion, which replenishes its coffers with the price of palpable falsehoods.

If it were true that a religious paper could not be financially successful without taking money for the advertisement of worth-



less or delusive remedies, a course might be suggested worthy of the main object of these papers. But it is not true; for there are a few happy illustrations of the fact that, even in a religious newspaper, 'honesty is the best policy.'

"We call the attention of our large circle of readers to this matter, in the hope that they will use their influence to put an end to what we regard as a serious blemish in religious newspapers and one which injures the good reputation which they ought to enjoy. And we call the attention of those religious newspapers to which our remarks may apply to this matter, in the hope that we shall not have to recur to it in a more explicit manner."

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

#### CHAPTER VII.—*Concluded.*

Laura looked up astonished from the hideous dogs to the unexpected visitor, who came toward her with dignified steps.

"I come to complain, young lady!" began Frau Hahn, without further greeting. "The insults that have been heaped upon my husband from this house are insupportable. For your father's conduct you are not responsible; but I think it shocking that a young girl like you should also join in these outrages!"

"What do you mean, Madame Hahn?" asked Laura, excitedly.

"I mean the affront of giving a man's name to dogs. You call your dogs by all my husband's names."

"That I have never done," replied Laura.

"Do not deny it," cried out Frau Hahn.

"I never speak an untruth," said the maiden, proudly.

"My husband's name is Andreas Hahn, and what you call this beast is heard by the whole neighborhood."

Laura's pride was roused. "This is a misunderstanding, and the dog is not so called. What you say is unjust."

"How is it unjust?" returned Frau Hahn. "In the morning the father, and in the afternoon the daughter, call him so."

A heavy weight fell on Laura's heart; she felt herself dragged down into an abyss of injustice and injury. Her father's conduct paralyzed her energies, and tears burst from her eyes.

"I see that you at least feel the wrong that you are committing," continued Frau Hahn, more calmly. "Do not do it again. Believe me, it is easy to pain others, but it is a sorry business, and my poor husband and I have not deserved it of you. We have seen you grow up before our eyes; and even though we have had no intercourse with your parents, we have always been pleased with you, and no one in our house has ever wished you ill. You do not know what a good man Hahn is, but still you ought not to have behaved so. Since we have dwelt here we have experienced many vexations from this house; but that you should share your father's views pains me most."

Laura endeavored in vain to dry her tears. "I repeat to you that you do me injustice; more I cannot say in self-justification, nor will I. You have grieved me more than you know, and I am satisfied that I have a clear conscience."

With these words she hastened into the house, and Frau Hahn returned home, uncertain as to the result of her visit.

Laura paced up and down her little room wringing her hands. Innocent and yet guilty in spite of her good will, wounded to the quick, dragged into a family feud, the unhappy results of which could not be foreseen, she reviewed the events of the past day in her excited mind. At last she seated herself at her little writing-table, took out her journal, and confided her sorrows to this silent friend bound in violet leather. She sought comfort from the souls of others who had borne up nobly under similar griefs, and at last found the confirmation of her experience in the expressive, well-known passage of Goethe's *Faust*:

"Reason doth folly, good doth evil grow;

The child must reap the mischief that the fathers sow."

Had she not wished to do what was reasonable and kind, and had not folly and evil arisen from it? and had not misfortune befallen her without her fault, because she was a child of that house? With this sentence she closed a passionate effusion. But in order not to appear to her conscience devoid of affection, the poor child wrote immediately underneath these words: "My dear, good father." Then she closed the book, feeling more comforted.

But the severest humiliation to her was the feeling that she would be judged unjustly by the people over the way; and she folded her arms and thought how she could justify herself. She, indeed, could do nothing; but there was a worthy man who was the confidant of every one in the house, who had cured her canary bird when ill, and removed a stain from the nose of her little bust of Schiller. She resolved, therefore, to tell only to the faithful Gabriel what Frau Hahn had said, and not a word to her mother unless obliged to do so.

It happened that toward evening Gabriel and Dorchchen entered into conversation in the street. Dorchchen began to make bitter complaints of the spitefulness of the Hummels, but Gabriel earnestly advised her to this effect: "Do not allow yourself to be dragged into these disputes. There must be some neutrals. Be an angel, Dorchchen, and bring peace and good will into the house; for the daughter is innocent." Whereupon the history of giving the name was spoken of, and Laura honorably acquitted.

Then, when Gabriel, a little later, incidentally remarked to her: "This matter is settled; and Herr Hahn has said that it had at once appeared to him improbable that you should be so ill-disposed toward him,"



—a heavy weight fell from her heart, and again her soft song sounded through the house. And yet she did not feel satisfied, for the annoyance to the neighboring house caused by her father's anger still continued. Alas! she could not restrain that violent spirit, but she must endeavor secretly to atone for his injustice. She pondered over this while undressing late at night; but when in bed, after entertaining and rejecting many projects, the right idea suddenly struck her; she jumped up at once, lighted her candle, and ran in her night-dress to the writing-table. There she emptied out her purse, and counted over the new dollars that her father had given her at Christmas and on her birthday. These dollars she determined to spend in a secret method of reparation. Highly pleased, she took the precious purse to bed with her, laid it under her pillow, and slept peacefully upon it, although the specter dogs raged round the house in their wild career, horribly and incessantly.

The following morning Laura wrote in large, stiff characters, on an empty envelope, the name and dwelling of Herr Hahn, and affixed a seal on which was the impression of a violet with the inscription, "I conceal myself," and put it in her pocket. On her way to town to make some purchases she stopped at a hot-house, the proprietor of which was unknown to her. There she bought a bushy plant of dwarf orange, full of flowers and golden fruit—a splendid specimen of the greenhouse; she carried it with beating heart in a close cab, till she found a porter, to whom she gave an extraordinary gratuity, and bade him leave the plant and envelope at the house of Herr Hahn without word or greeting of any kind.

The man performed the commission faithfully. Dorchon discovered the plant in the hall, and it caused an agreeable excitement in the Hahn family—fruitless imaginations, repeated inspection, and vain conjectures. When at noon Laura peeped through the vine arbor into the garden she had the pleasure of seeing the orange plant occupying a distinguished place in front of the white Muse. Beautifully did the white and gold of the shrub glitter across the street. Laura stood long behind the vine branches, unconsciously folding her hands. Her soul was unburdened of the injustice, and she turned from the hostile house with a feeling of proud satisfaction.

Meanwhile, there was a police complaint and legal suit pending between the two houses, which was seriously increased on that very day by the adoption of the dogs' names "Fighthahn" and "Spitchahn."

Thus the peace in house and neighborhood was still disturbed. At first the pealing of the bells had excited public opinion against Herr Hahn, but this was entirely altered by the introduction of the dogs: the whole street went over to the man of *straw*; the man of *felt* had all the world against him. But Herr Hummel cared little

for this. In the evening he sat in the garden on the upturned boat, looking proudly at the neighboring house, while Fighthahn and the other dog sat at his feet blinking at the moon, who in her usual way looked down maliciously on Mr. Hummel, Mr. Hahn, and all the rest of the world.

It happened on the following night that amidst the barking of dogs and moonshine all the bells were torn down from the temple of Herr Hahn and stolen.

#### CHAPTER VIII.

##### TACITUS AGAIN.

Our people know that all lost things lie under the claws of the Evil One. Whoever seeks anything must call out: "Devil, take thy paw away." Then it suddenly appears before the eyes of men, it was so easy to find; they have gone round it a hundred times; they have looked above and below, and have sought it in the most improbable places, and never thought of the nearest. Undoubtedly it was so with the manuscript; it lay under the clutches of the Evil One or of a hobgoblin, quite close to our friends; if they were to stretch out their hands they might lay hold of it; the acquisition was only hindered by one consideration, by the question, Where? Whether this delay would involve more or less suffering for both the scholars was still doubtful. Nevertheless, they might overcome even this uncertainty; the main point was, that the manuscript really existed and lay somewhere. In short, the matter stood on the whole as well as possible; the only thing wanting was the manuscript.

"I see," said the Doctor to his friend, "that you are strenuously exerting yourself to educate the older people. I put my hopes in the souls of the younger generation. Hans, the eldest, is very far from sharing the views of the father and sister; he shows an interest in the old treasure, and if we ourselves should not succeed in making the discovery, he will at some future period not spare the old walls."

In conjunction with Hans, the Doctor secretly resumed his investigations. In quiet hours, when the proprietor was unsuspectingly riding about his farm, and the Professor working in his room or sitting in the honeysuckle arbor, the Doctor went prying about the house. In the smock-frock of a laborer, which Hans had brought to his room, he searched the dusty corners of the house high and low. More than once he frightened the female servants of the household by suddenly emerging from behind some old bin in the cellar, or by appearing astride of one of the rafters of the roof. In the dairy a hole had been dug for the forming of an ice-pit; the laborers had gone away at noon, and the mademoiselle passed close to the uncovered pit, suspecting nothing. There she beheld, suddenly, a head without a body, with fiery eyes and bristly hair, which



was slowly groping along the ground and turned its face to her with a mocking laugh. She uttered a shrill cry and rushed into the kitchen, where she sank fainting on a stool and was only revived by the sprinkling of water and encouraging words. At dinner she was so much troubled that every one was struck by it, and at last it appeared that the devilish head was to be found on the shoulders of her neighbor, who had secretly descended into the hole in order to examine the masonry.

On this occasion the Doctor discovered, with some degree of malicious pleasure, that the hospitable roof which protected him and the manuscript from rain stood over an acknowledged haunted house. There were strange creakings in the old building; spirits were frequently seen, and the accounts only differed as to whether there was a man in a gray cowl, a child in a white shirt, or a cat as large as an ass. Every one knew that there was in all parts a knocking, rattling, thundering, and invisible throwing of stones. Sometimes all the authority of the proprietor and his daughter was necessary to prevent the outbreak of a panic among the servants. Even our friends, in the quiet of the night, heard unaccountable sounds, groans, thundering noises and startling knocks on the wall. These annoyances of the house the Doctor explained to the satisfaction of the proprietor by his theory of the old walls. He made it clear that many generations of weasels, rats and mice had bored through the solid walls and laid out a system of covered passages and strongholds. Therefore every social amusement and every quarrel which took place among the inmates of the wall were made perceptible in muffled noises. But the Doctor listened with quiet vexation to the secret noises of his wall-neighbors; for if these blustered around the manuscript so excitedly, they threatened to render difficult the future investigation of science. Whenever he heard a violent gnawing he could not help thinking they were again eating away a line of the manuscript, which would make a multitude of conjectures necessary; and it was not by gnawing alone that this colony of mice would disfigure the manuscript that lay underneath them.

But the Doctor was compensated by other discoveries for the great patience which was necessary under these circumstances. He did not confine himself to the house and adjoining buildings; he searched the neighborhood for old popular traditions which here and there lingered in the spinning-room and worked in the shabby heads of old beldames. Through the wife of one of the farm-laborers, he secretly made the acquaintance of an old crone well versed in legendary lore in the neighboring village. After the old woman had recovered from her first alarm at the title of the Doctor and the fear that he had come to rebuke her on account of incompetent medical practice, she sang to him, with trembling voice, the love songs of her youth, and related to him

more than the hearer could note down. Every evening the Doctor brought home sheets of paper full of writing and soon found in his collection all the well-known characters of our popular legends—wild hunters, devilish hags, three white maidens, many monks, some shadowy water pixies, sprites who appeared in the story as artisan lads, but undeniably sprang from a merman; and finally many small dwarfs. Sometimes Hans accompanied him on these excursions to the country people, in order to prevent these visits from becoming known to the father and daughter. Now, it is certainly possible that here and there a hole in the earth or a well in the field might be provided with spirits without any foundation; for, as the wise women of the village observed how much the Doctor rejoiced in such communications, the old inventive power of the people awoke from a long slumber; but, on the whole, both parties treated each other with German truth and conscientiousness; and, besides, the Doctor was not a man who could easily be taken in.

Once when he was returning to the castle from such visits he met the laborer's wife on a lonely foot-path. She looked cautiously about and at last acknowledged that she could impart something to him if he would not betray her to the proprietor. The Doctor promised inviolable secrecy. Upon this the woman stated that in the cellar of the castle, on the eastern side, in the right-hand corner, there was a stone, marked with three crosses; behind that lay the treasure. She had heard this from her grandfather, who had it from his father, who had been a servant in the castle; and at that time the then Crown Inspector had wished to raise the treasure, but when they went into the cellar for that purpose, there had been such a fearful crash and such a noise that they ran away in terror. But that the treasure was there was certain, for she had herself touched the stone, and the signs were distinctly engraved on it. The cellar was now used for wine, and the stone was hidden by a wooden trestle.

The Doctor received this communication with composure, but determined to set about investigating by himself. He did not say a word either to the Professor or to his friend Hans, but watched for an opportunity. His informant sometimes herself carried the wine which was always placed before the guests, to the cellar and back. The next morning he followed her boldly; the woman did not say a word as he entered the cellar behind her, but pointed shyly to a corner in the wall. The Doctor seized the lamp, shoved half a dozen flasks from their places and groped about for the stone; it was a large hewn stone with three crosses. He looked significantly at the woman—she afterward related in the strictest confidence that the glass shields before his eyes shone at this moment so fearfully in the light of the lamp, that she had become quite terrified—then he went



silently up again, determined to take advantage of this discovery on the first opportunity in dealing with the proprietor.

But a still greater surprise awaited the Doctor; his quiet labor was supported by the deceased Brother Tobias himself. The friends descended one day to Rossau, accompanied by the proprietor, who had business in the town. He conducted his guests to the Burgomaster, whom he requested to lay before the gentlemen, as trustworthy men, whatever old writings were in the possession of the authorities. The Burgomaster, who was a respectable tanner, put on his coat and took the learned men to the old monastery. There was not much to be seen; only the outer walls of the old building remained; the minor officials of the crown dwelt in the new parts. Concerning the archives of the council the Burgomaster suggested the probability that there would not be much found in them; in this matter he recommended the gentlemen to the town clerk, and himself went to the club in order, after his onerous duties, to enjoy a quiet little game of cards.

The town clerk bowed respectfully to his literary colleagues, laid hold of a rusty bunch of keys, and opened the small vault of the city hall, where the ancient records, covered with thick dust, awaited the time in which their quiet life was to be ended under the stamping machine of a paper mill. The town clerk had some knowledge of the papers; he understood fully the importance of the communication which was expected from him, but assured them with perfect truth that, owing to two fires in the town and the disorders of former times, every old history had been lost. There were also no records to be found in any private house; only in the printed chronicles of a neighboring town some notices were preserved concerning the fate of Rossau in the Thirty Years' War. After that, the place had been a heap of ruins and almost uninhabited. The town had since continued without a history, and the town clerk assured them that nothing was known here of the olden time, and no one cared about it. Perhaps something about the town might be learnt at the capital.

Our friends continued to walk unweariedly from one clever man to another, making inquiries, as in the fairy tale, after the bird with the golden feather. Two little gnomes had known nothing, but now there remained a third—so they went to the Roman Catholic priest. A little old gentleman received them with profound bows. The Professor explained to him that he was seeking information concerning the ultimate fate of the monastery—above all, what had happened in his closing years to the last monk, the venerable Tobias Bachhuber.

"In those days no register of deaths was required," replied the ecclesiastic. "Therefore, my dear sirs,

I cannot promise to give you any information. Yet, if it is only a question of yourselves, and you do not wish to extract anything from the old writings disadvantageous to the Church, I will show you to the oldest of the existing books." He went into a room and brought out a long thin book, the edges of which had been injured by the mold of the damp room. "Here are some notices of my predecessors who rest with the Lord; perhaps they may be useful to the gentlemen. More I cannot do, because there is nothing else of the kind existing."

On the introductory page there was a register of the ecclesiastical dignitaries of the place in Latin. One of the first notices was: "In the year of our Lord 1637, and in the month of May, the much venerated brother Tobias Bachhuber, the last monk of this monastery, died of the plague. The Lord be merciful to him."

The Professor showed the passage silently to his friend the Doctor, who wrote down the Latin words; they then returned the book with thanks and took leave.

"The manuscript still lies in the house," said the Professor, as they went along the street. The Doctor thought of the three crosses and laughed quietly to himself; he had in no way assented to the tactics which his friend thought fit to adopt for the discovery of the manuscript. When the Professor maintained that their only hope rested on the sympathy which they might by degrees awaken in their host, the Doctor entertained the suspicion that his friend was brought to this slow way of carrying on the war not by pure zeal for the manuscript.

The proprietor, however, maintained an obstinate silence concerning the manuscript. If the Doctor threw out any hint upon the subject, the host made a wry grimace and immediately changed the conversation. It was necessary to put an end to this. The Doctor now determined to insist upon a decision before his departure. When, therefore, they were sitting together in the garden in the evening, and the proprietor was looking cheerfully and calmly on his fruit trees, the Doctor began the attack:

"I cannot leave this place, my hospitable friend, without reminding you of our contract."

"Of what contract?" inquired their host, like one who did not remember it.

"Regarding the manuscript," continued the Doctor, with emphasis, "which lies concealed in this place."

"Indeed! why you yourself said that every place sounds hollow. So we would have to tear down the house from roof to cellar. I should think we might wait till next spring, when you come to us again; for we would be obliged, under these circumstances, to live in the barns, which now are full."

"The house may, for the present, remain standing," said the Doctor; "but if you still think that the monks



took away their monastic property, there is one circumstance which goes against your view. We have discovered at Rossau that the worthy friar, who had concealed the things here in April, died of the pestilence as early as May, according to the church register; here is a 'copy of the entry.' "

The proprietor looked at the Doctor's memorandum book, closed it and said: "Then his brother monks have taken away the property."

"That is scarcely possible," replied the Doctor, "for he was the last of his order in the monastery."

"Then some of the city people have taken it."

"But the inhabitants of the town abandoned it then, and the place lay for years desolate, in ruins and uninhabited."

"Humph!" began the proprietor, in good humor; "the learned gentlemen are strict creditors and know how to insist upon their rights. Tell me straightforwardly what you want of me. You must, first of all, point out to me some place which appears suspicious, not only to you, but also to the judgment of others; and that you cannot do with any certainty."

"I know of such a place," answered the Doctor, boldly, "and I wish to suggest to you that the treasure lies there."

The Professor and the proprietor looked on him with astonishment.

"Follow me into the cellar," cried the Doctor.

A candle was lighted; the Doctor led the way to the place where the wine lay.

"What gives you such victorious confidence?" inquired the Professor, on the way, in a low voice.

"I suspect that you have your secrets," replied the Doctor; "permit me to have mine."

He actively removed the bottles from the corner, threw the light on the stone, and knocked on the wall with a large key.

"The place is hollow and the stone has a peculiar mark."

"It is true," said the proprietor; "there is an empty space behind it; it is certainly not small. But the stone is one of the foundation stones of the house, and has not the appearance of ever having been removed from its place."

"After so long a time, it would be difficult to determine that," rejoined the Doctor.

The proprietor examined the wall himself.

"A large slab lies over it. It would, perhaps, be possible to raise the marked stone from its place." He considered for a moment, and then continued: "I see I must let you have your own way. I will thus make compensation for the first hour of our acquaintance, which has always lain heavy on my conscience. As we three are here in the cellar like conspirators, we will enter into an agreement. I will at once do what I consider

to be very useless. In return, whenever you speak or write upon the subject, you must not refuse to bear testimony that I have given in to every reasonable wish."

"We shall see what can be done," replied the Doctor.

"Very well. In the stone quarry at the extremity of my property I have some extra hands at work; they shall remove the stone and then restore it to its place. Thus, I hope, the affair will be forever settled. Ise, early in the morning let the shelving be removed from the wine-cellar."

The following day the stonemasons came, and the three gentlemen and Ise descended into the cellar, and looked on curiously while the men exerted their power with pickaxe and crowbar on the square stone. It was placed upon the rock, and great exertions were necessary to loosen it. But the people themselves declared that there was a great cavity behind, and worked with a zeal that was increased by the repute of the haunted house. At last the stone was moved and a dark opening became visible. The spectators approached—both the scholars in anxious suspense; their host and his daughter also full of expectation. One of the stonemasons hastily seized the light and held it before the opening. A slight vapor came out; the man drew back alarmed.

"Within there lies something white," he cried, full of fear and hope.

Ise looked at the Professor, who with difficulty controlled the excitement that worked in his face. He grasped the light, but she kept it from him, and cried out, anxiously, "Not you." She hastened to the opening and thrust her hand into the hollow space. She laid hold of something tangible. A rattling was heard; she quickly withdrew her hand; but, terrified, threw what she had laid hold of on the ground. It was a bone.

(To be continued.)

Fortune does not change men: it unmasks them.—*Mme. Necker.*

Poets are like birds: the least thing makes them sing.—*Chateaubriand.*

The pleasantest things in the world are pleasant thoughts, and the great art in life is to have as many of them as possible.—*Bovee.*

You may deceive all of the people some of the time, and some of the people all the time, but not all the people all the time.—*Abraham Lincoln.*

It is better to advise than to reproach; for the one is mild and friendly, the other stern and severe; the one corrects the erring, the other only convicts them.—*Epictetus.*

If we see rightly and mean rightly, we shall get on, though the hand may stagger a little; but if we mean wrongly, or mean nothing, it does not matter how firm the hand is.—*Ruskin.*



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EDWARD C. HEGELER, PRESIDENT.

DR. PAUL CARUS, EDITOR.

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Devoted to the Work of Conciliating Religion with Science.

No. 29. (VOL. II.—3.)

CHICAGO, MARCH 15, 1888.

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## GOETHE AND THE DEVELOPMENT HYPOTHESIS.

BY PROFESSOR CALVIN THOMAS.

"Men there are whose patient minds,  
In one object centered,  
Wait till through their darkened blinds  
Truth has burst and entered.

\* \* \* \* \*

Men there are whose ambient souls,  
In rapt Intuition,  
Seize Creation as it rolls,  
Whole, without partition." —J. C. Maxwell.

The merits of Goethe as a man of science, and more especially his relation to the evolutionary theories of our day, are subjects that have lately been attracting, in Germany at least, a considerable amount of attention. Virchow, Haeckel, Helmholtz and Du Bois-Reymond, not to mention names of less repute, have all contributed to the discussion, and, their writings having called forth more or less opposition, quite a body of literature has grown up about the question whether Goethe, who was so many other things, was or was not an evolutionist in the modern sense of the term.

The disagreement of very competent authorities upon this subject might appear surprising were not the disagreement of doctors on almost every conceivable subject such a very familiar fact of human experience. Many years ago Helmholtz stated his conception of the matter thus:

"To Goethe belongs the great glory of having first foreseen the leading ideas toward which the sciences of organic nature were tending and by which the subsequent development of those sciences has been determined."\*

Haeckel, in an address before the fifty-fifth Congress of German Naturalists and Physicians, rates the scientific merits of Goethe very high, declaring that he can see "no essential difference" between Goethe's philosophy of Nature and "our modern monistic philosophy as re-established by Darwin."† On the other hand Du Bois-Reymond, in a now famous address delivered upon assuming the rectorate of the University of Berlin in 1883, takes the ground that Goethe's mental endowment was, for a man of science, fatally defective in one important particular, namely, the sense for mechanical causality;

that his views were essentially different from the Darwinism of to-day; that what he did and thought in a would-be scientific way was at best of little moment and would not be missed if it were obliterated from the history of scientific thought. In short, Du Bois-Reymond would have the world remember that the poet Goethe was a man of science in precisely the same spirit as it remembers that King Frederick the Great was a poet.\*

It is not my purpose to enter upon the discussion of this subject in a controversial spirit, or to urge opinions of my own with regard to the value of Goethe's scientific ideas. What I shall try to do is rather to make clear, historically and from the documents, what the ideas in question really were, so far as they are related directly or indirectly to the development hypothesis. It might seem perhaps as if a mere exposition of any views of Goethe must be at this date superfluous, but I hardly think that such is really the case. Personally I incline to the opinion that the general position of Du Bois-Reymond as outlined above is not altogether unsound, and I seem to discern among the admirers of Goethe a tendency to overestimate the importance of their hero in the history of science. But, on the other hand, I cannot doubt that the opposite error of rating him too low is still more common. Especially, as I judge, do inadequate conceptions prevail with regard to the real range and character of his evolutionary speculations. And these conceptions conduce not simply to an imperfect, but to a really wrong, understanding of the man.

For Goethe's scientific thinking cannot be regarded as something apart from and independent of the remainder of his intellectual existence. His mind was not one of air-tight compartments, but one in which each new range of ideas speedily interfused with and formed one whole with all the rest. We may, perhaps, make a partial exception to this remark in case of the *Farbenlehre*. Though he himself attached such supreme importance to his "Theory of Colors," yet it is, as a matter of fact, possible to think all that away from his life and still have Goethe left. But this is not the case with his views upon the general subject of development, which are intimately bound up with all that is most characteristic of the man. For any philosophical purposes it is impossible to separate the poet from the scien-

\**Populäre Wissenschaftliche Vorträge* Erstes Heft, Braunschweig, 1876, p. 37. The quotation is from a lecture delivered in 1853.

†*Die Naturanschauung von Darwin, Goethe und Lamarck*, Jena, 1883, p. 32.

\**Goethe und sein Ende*. Leipzig, 1883.



tific thinker, and to extol the one while disparaging or ignoring the other. It is possible, of course, to maintain that the poet Goethe would not have suffered in the least if he had never meddled with the "dead work" of research. But even this proposition appears to me debatable in spite of his well-known ineptitude\* for dead work; even if admitted it would mean simply that his ideas are more interesting than his arguments. Such people there are and always have been in the world, and it will not do to treat them with disrespect because of this peculiar characteristic. In fact the class is strongly represented among the intellectual patricians of the human race.

Goethe's pursuit of scientific studies began with mineralogy; for we may leave out of the account his slender acquirements at the university and his later dabbling in physiognomic speculations under the auspices of Lavater. It was in 1776 that he first took his seat as a member of the Ducal Council in Weimar and almost the first official responsibility committed to his charge was the superintendence of certain mining operations in Ilmenau. The interests involved were not large, but they were important enough to the mind of Goethe so that, with the conscientiousness which was a part of his nature, he at once set vigorously about the study of mineralogy, which, however, soon came to interest him chiefly through its bearing on the broad questions of geological theory. We learn from his journal and correspondence how eagerly he applied himself to this new pursuit. He visits all the nooks and crannies of the little State in order to study their geological features.† He commences a collection of minerals and endeavors to communicate his new enthusiasm to his friends. Wherever he goes we find him knocking at the rocks and returning laden with treasures. "I am now living body and soul in rock and mountain," he writes Sept. 8, 1780, "and am delighted with the broad prospects that are opening before me."‡ By 1782, as we learn from a letter to Merck, he begins to feel something of self-assurance with regard to his knowledge of geology. Shortly after this botany and comparative anatomy begin to claim a portion of his attention, but his interest in the former study continues unabated. In 1784 he makes a journey to the Harz mountains and keeps what he calls a "geognostic diary"§ of his travels. He prints nothing, however, until 1807, after which we have from his pen a considerable number of short contributions to geological literature. These contributions are

of different kinds; some are mere notes, others are book-reviews and still others are descriptions of the geological features of the Karlsbad region and other localities which he had especially studied. The only interest they have lies in the incidental deliverances they contain with regard to geological theory.

Right at the beginning of his studies Goethe had accepted the doctrine of Werner that granite is the foundation of the earth and that other formations are always of later origin, having been superimposed upon the granite in the form of deposits from a primeval ocean or a chaotic *menstruum*. This theory he soon came to look on as impregnable, and thus granite acquired for him a quite peculiar sentimental interest. In letters of the period he refers to himself as a "friend of granite" and a fixed belief in the primordial character of that rock established itself as an underlying assumption in all his speculations concerning the sculpturing of mountain-masses. There is a curious fragment of his, written probably in 1784, but only in recent years made public\*—a bit of a prose ode to granite:

"Sitting on a high and naked peak," so runs a portion of the piece, "and gazing over a wide expanse, I can say to myself: Here thou reposest immediately upon a foundation which reaches down to the deepest places of the earth. No recent layer, no heaps of *débris* washed together by the water, have ever deposited themselves between thee and the firm ground-floor of the primeval world. Here thou dost not, as in those beautiful and fruitful valleys, walk over a continual grave; these peaks have never begotten and never swallowed up any living thing; they are before all life and above all life."

With such ideas in his head as the basis of all geological wisdom, Goethe naturally sided with the Neptunists when the great controversy of the last century broke out. The evidence seemed to him conclusive that Nature's process in the shaping of the hills had been a quiet and leisurely process. To this conviction he clung tenaciously through life and finally gave it emphatic expression in the second part of *Faust*:

"Als die Natur sich in sich selbst gegründet,  
Da hat sie rein den Erdball abgeründet,  
Der Gipfel sich, der Schluchten sich erfreut,  
Und Fels an Fels und Berg an Berg gereiht;  
Die Hügel dann bequem hinabgebildet,  
Mit sanftem Zug sie in das Thal gemildet.  
Da grünt's und wächst's, und um sich zu erfreuen,  
Bedarf sie nicht der tollen Strudelreien."†

Goethe was fond of working to its utmost capacity the thought that had once taken possession of him, and so it suited his bent to expand this geological doctrine

\*Goethe did not deceive himself on this subject. Under date of July 20, 1787, he writes from Rome of his two "capital faults." Einer ist dass ich nie das Handwerk einer Sache die ich treiben wollte, lernen mochte. . . . Der andere, nach verwandte Fehler, ist dass ich nie so viel Zeit auf eine Arbeit oder Geschäft wenden mochte, als dazu erfordert wird.—Goethe's *Werke*, XXXV., 366, Hempel edition.

†Letter to Merck, Oct. 11, 1780.

‡Letter to Frau von Stein.

§First published in 1877 in Part XXXIII. of the Hempel Edition of Goethe's *Works*, p. 438 ff.

\*Werke XXXIII., p. 92 ff.

†Werke XIII., 177. In Bayard Taylor's translation:

"When nature in herself her being founded,  
Complete and perfect then the globe she rounded,  
Glad of the summits and the gorges deep  
Set rock to rock, and mountain steep to steep,  
The hills with easy outlines downward moulded  
Till gently from their feet the vales unfolded,  
They green and grew; with joy therein she ranges,  
Requiring no insane, convulsive changes."



into the comprehensive idea that Nature's *characteristic* *modus operandi* is *always* quiet and leisurely—a method of gradual transformation without breaks and without barriers. This idea, fortified doubtless by the study of Spinoza, then became one of the ruling conceptions of his life; it furnished him with a starting-point for scientific study, with a rule of conduct and a maxim for judging the actions of men. What application he made of it in the realm of plant and animal morphology will presently appear. He wrote *Meister* to exhibit the gradual transformation of a human character under the attritions of experience. He hated the Revolution because it was a sudden and violent upheaval. In short, reverence for the method *ohne Hast aber ohne Rast* became the key-note of his character.

Like the rest of the Neptunists, Goethe, of course, could but be aware that volcanoes and earthquakes are facts in Nature; he contended, however, that such agencies must always have been what they appear to be at any particular epoch, namely, something sporadic and exceptional. His conception, curious as it appears when stated, seems to have been that violent commotions were not a part of Nature's process, but rather interruptions of it. In 1788 Werner claimed an igneous origin for basalt, and Goethe regarded the case as made out. Some of the *Xenia* are at the expense of the Vulcanists, whose cause he regarded as lost beyond the possibility of retrieval. It was therefore a source of infinite mental disturbance to him when, in the early part of this century, catastrophic theories, more or less similar to those advocated by Hutton, began to win influential friends. The new views, as accepted by Von Buch and Von Humboldt in Germany and by De Beaumont in France, ran counter to his inveterate prejudice. It was like telling him that mother Nature was after all unsteady and subject to freaks. The matter interested him very deeply; it is often referred to in his letters and prose writings, and is woven into the fabric of the second part of *Faust*.<sup>\*</sup> In *Faust* each side of the controversy is presented by its appropriate champion, but the Vulcanist doctrine is given by the poet a slight tinge of burlesque and persiflage, whereas that of the Neptunists is obviously intended to be taken *au grand sérieux*. The colloquies in *Faust* are serene enough, but the poet could not always maintain his serenity when dealing with this subject. In an oft-quoted passage, written not long before his death, he exclaims:

Be the case as it may, it must be written that I denounce this accursed racket and lumber-garret of the new order of creation (i. e., the noisy argument of those who would make of Nature's orderly work an unregulated rubbish-chamber). Surely some young man of genius will arise who will have the courage to oppose this crazy unanimity.†

This bold and confident prediction from an octogenarian poet is rather striking as a token of the man's character, but it becomes still more striking when we recall that at the very time when these words were being penned by the irritated Altmeister, the "young man of genius" was at his work. Sir Charles Lyell's famous book, which ushered in the modern era of "bit by bit" geology, appeared first in 1830.

The great controversy of a hundred years ago has now only an historical interest; there are to-day, so far as I am aware, neither Neptunists nor Plutonists. The modern discovery of the conservation of energy, the general acceptance of the nebular hypothesis and the resultant conceptions with regard to the life of the earth have made much of the older speculation untenable. The ideas of Goethe were very different from those of to-day. But while this is true, it is interesting to note how much nearer he stood than even the greatest of his contemporaries to the conceptions of the present time. He had started from a false theory and much of his reasoning was in its detail wrong, but so excellent were his powers of observation and interpretation, and so perfect was his intellectual balance, that he was able to reach conclusions which were in the main sound, and to anticipate, as Helmholtz says, the leading ideas of the coming era.

But was not this anticipation largely fortuitous? Was it not a coincidence which was thus and might have been otherwise? That it was not so, but rather an honest triumph of the scientific imagination, appears probable when we pass from the general to the particular and consider, for example, his prevision of the coming importance of paleontology and his theory of a glacial epoch. "The growing importance of the history of organic remains," writes Sir Charles Lyell, "may be pointed to as the characteristic feature of the science (of geology) during the present century." In view of this fact particular interest attaches to a letter of Goethe to Merck, written October 27, 1782. In this letter the writer sets forth his theory as to how the bones found in the alluvial plains of Germany came to be there, and argues that they belong to a recent epoch which is, however, in comparison with our ordinary computation of time, "prodigiously remote." He then adds this sentence: "*The time will come when people will no longer jumble together organic remains, but will arrange them with reference to the world's epochs.*"

This may seem a small matter, hardly worth the emphasis of italics. And so it is from one point of view; Goethe did not follow up the idea himself, and nothing came of it so far as he was concerned. But it is somewhat remarkable that at this date such a thought should have been in his mind at all, since it does not seem to have been in any one else's. Cuvier and William Smith were boys of thirteen, and the older geolo-

<sup>\*</sup> The passages occur in the *Classical Walpurgis Night Scene* and at the beginning of Act IV. Werke XIII., 103 ff. and 176 ff.

† Werke XXXIII., p. 466.



gists, regarding their science as the handmaid of biblical orthodoxy, were content to see in fossil remains at once the work and the evidence of the Noachian deluge. Back of the flood they did not care to go. So that Goethe's isolated idea begins to appear like a mental achievement of some dignity—an appearance which becomes more marked when we recall what nonsense a man of genius like Voltaire could still think and write on the subject of organic remains.\*

Goethe's relations to the glacier theory may be briefly described. He early speculated more or less upon the erratic boulders of Germany, and in time seems to have accepted the theory of his friend Voigt that they had been floated in from the North upon icebergs in the days of the primeval ocean. Toward the close of his life, however, we find him in possession of another theory, to the effect that anciently, at a time when North Central Europe was covered with water to a depth of—say a thousand feet, an epoch of great cold (*grosser Kälte*) had set in and that the phenomena of glacial action had then manifested themselves on a large scale in Germany. This idea is first recorded in *Wilhelm Meister's Wanderjahre*, in a passage which is known to have reached its present shape in 1829.† It is also formulated in an essay entitled "Geological Problems and their Solutions," first printed in 1833.‡ Thus we see that Goethe was dreaming of primeval ice fields at least a decade before Agassiz, attracted by the work of Charpentier, built his lone hut on the Aar glacier and commenced the series of investigations which resulted in opening up so many a new vista in modern geology. Both Charpentier and Agassiz acknowledged the priority of Goethe in this line of speculation.

(To be concluded.)

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY. §

BY FELIX L. OSWALD, M. D.

Part II.

##### RACE INFLUENCES.

The innate character-traits of individuals are biased by the sum of ancestral experience, and the same factor determines the moral characteristics of nations. "Blood will tell" in tribes and races as well as in families. A predisposition to deeds of violence has more than once been traced to a long lineage of moral outlaws. There have been dynasties of headstrong, lion-hearted rulers and dynasties of fox-kings. A penchant for mysticism,

\* In one of his essays Voltaire attempts to revive a hypothesis of the sixteenth century to the effect that the marine shells found in inland Europe were "sports of nature." He also thought, or pretended to think, that the plant impressions found upon rocks were not made by genuine plants—*pierres figurées* was his name for the phenomenon. Elsewhere he remarks that the bones of a reindeer and a hippopotamus found near Etampes did not prove, as some would have it, that Lapland and the Nile were once on a tour from Paris to Orleans, but merely that a lover of curiosities had preserved them in his cabinet.—Quoted by Lyell, *Principles*, Amer. Ed. of 1853, p. 55.

† *Werke* XVIII., p. 463 ff.

‡ *Werke* XXXIII., p. 464.

§ Copyrighted.

for bigotry, and even for suicide, has often tainted a long series of generations; and it is no accident that at certain periods of the world's history we find whole groups of nations launching their destiny on the stream of intellectual freedom, while others remain anchored to the shoals of dogmatic conservatism. A fertile soil may stimulate the industry of one race and encourage the indolence of another. There are incurably servile nations and nations whose love of independence will assert itself in spite of all obstacles.

Race-experience is the key to the secret of such contrasts. The bears of our Western Territories were more than a match for the bow-armed Indian, and still attack every intruder of their hunting-grounds with a recklessness that will lead to their ultimate extinction; and the same hardihood of aggressive valor has often characterized the politics of special, numerically perhaps inferior, nations, whose forefathers had acquired the habit of cutting every knot with the edge of the sword. The Asiatic ancestors of the Turks, for instance, had for ages been able to hold their own against every aggressor of their highland pastures, and their descendants are still strangely prone to right every wrong by summary methods of physical force. They loathe the shifts of diplomacy which the logic of circumstances urges upon their statesmen; their pride aggravates the penalties of defeat; they refuse to conciliate their rebellious subjects by prudent concessions; yet, withal, they have the virtues of their faults. Like the Turkoman chieftain who would bully all neighboring princes, but scorn to count the pennies of their tribute, the modern pasha, with all his jealousy of prestige, detests the details of red tape, and in times of need is ever ready to maintain his honor at the expense of his purse.

His moral antipode is the descendant of a race which in its mother's milk has imbibed the lessons of adversity and learned to deprecate the truculence of the victor by ready submission. Cunning and duplicity are the defences of the weak and may become hereditary character-traits as hard to eradicate as a penchant for violent self-help. The East-Indian ancestors of our Gypsies were harassed by the insolence of superior races till they learned to obviate trouble by avoiding the neighborhood of their oppressors and roaming the by-ways of the wilderness. They became vagrants, and remain vagrants even in countries where homesteads might be had for the asking. Moreover, an instinctive, rather than clearly conscious, desire to "cover their tracks" makes them apt to misrepresent their intended march-route and otherwise prevaricate without apparent cause, or even where candor would seem to serve their purpose much better. The hereditary influence of slavery appears to transmit similar character-traits, and the most phenomenal case of innate duplicity in my experience was that of a twelve-year old negro boy, doing chores



for a Texas lawyer of my acquaintance. "I can professionally appreciate a first-class fib," said his master, "but that young colleague seems to labor under the impression that prevarication is its own reward. A successful fiction stimulates him like a moral triumph, even if it costs him a dozen collateral fictions. He tells the truth only as a last desperate expedient."

Subjected nations of a more intellectual type are apt to resent oppression by commercial sharp-practice. The dwarfs of Norse mythology avenge their wrongs by outwitting their burly despoilers, and the triumphs of mercantile strategy formed the moral, as well as material, support of the trafficking Greeks under the sway of Moslem despotism, as of the trafficking Hebrews under the yoke of mediæval fanaticism, and thus laid the foundation of a race tendency which centuries of freedom may fail to eliminate.

There is a curious analogy in the moral phenomena of individual and national decrepitude. Young men of a normal constitution are natural optimists. A feeling of exuberant vitality inspires them with an almost misfortune-proof cheerfulness of temper; they never question the value of life and are too happy in the enjoyment of a present existence to waste much time with speculation on the prospect of a better hereafter. At the approach of old age, however, that constitutional joyousness gradually yields to the development of an instinctive pessimism. Disappointment, or mere satiety, produce that feeling of world-weariness by which Nature seems to reconcile the evening of life to the prospect of the long night, and which, by the influence of enervating excesses or under the weight of special grievous afflictions, may often assert itself at a comparatively early age. Worn-out debauchees and faded flirts are apt to become prematurely pious. Doomed criminals renounce the vanities of a world they are about to leave with the assistance of the county sheriff. From the anguish of a hopeless day the soul turns naturally to the solace of sleep—with or without the prospect of a brighter morning; and the grief of departure is blunted by the depreciation of the forfeited blessings. Worn-out nations, too, console themselves by withdrawing from the arena of international competition that has ceased to offer them a hope of success. They become stolid; they blunt the sting of defeat by renouncing ambition; they blunt the stigma of physical degeneration by suppressing the instincts of manhood. Their yearning turns from the scenes of life to the hope of a better beyond—the peace of the grave and the visionary joys of the spirit-world. Hence the physical apathy of degenerate nations; hence also their instinctive partiality for the doctrine of renunciation, and the rapid spread of Buddhism among the decrepit nations of the East. The gospel of Buddha Sakyamuni is simply an apotheosis of Death. His doctrine is a system of moral nihilism, and expounds a plan

for avoiding the disappointments of life by renouncing its hopes. According to that dogma, not sin or sickness only, but life itself is an evil, and death its only remedy—definite death, to be purchased by the systematic suppression of all vital instincts, and the concentration of all hopes upon the prospect of Nirvana, the peace of final extinction. Among the bondage-crushed millions of the furthest East that ghastly creed soon attained a popularity rivaled only by the popularity of opium. Buddhism is a moral narcotic which has completed the abasement and enervation of its votaries and made the imagined worthlessness of life a melancholy fact, but which for millions of abject wretches has undoubtedly also mitigated the bitterness of that fact. To him who has succeeded in deadening the love of life the daily little vexations of existence become as insignificant as the roadside thorns to a man on his way to a self-chosen grave, and the devotee who had renounced all hopes but that of extinction could more easily brook the life-shortening misery of toil and despotism. Despotism itself seems to have recognized the advantages of that tendency, and the shrewd autocrats of China and Siam were zealous promoters of a creed that helped to lethargize the rebellious instincts of their slaves.

Under exactly analogous auspices the Doctrine of Renunciation was afterward preached on the shores of the Mediterranean. The moral energy of the vanquished nations of Syria and Asia Minor had been exhausted by centuries of incessant warfare. Despotism, aided by luxury and vice, had undermined the manhood of their conquerors, and it is a curious fact that the conversion of the Roman Empire was preceded by a widespread epidemic of pessimism. Even during the long peace of the Antonines the philosophers of Greece and Rome vied in lamenting the hopelessness of the prevailing degeneration, and in exalting the solace of exile and suicide. The stoicism of Marcus Aurelius was tinged with a despondency bordering on absolute life-weariness. Moralists and historians plainly predicted the impending fall of the Empire, though that fall seemed to involve the absolute ruin of civilization. The propaganda of a world-renouncing gospel of anti-naturalism intensified and consolidated those tendencies, and soon spread with the rapidity of a moral epidemic. Patriots passionately resisted that consummation of their doom; philosophers appealed to every remaining vestige of manhood and common sense, but the world-renouncers were favored by the general current of tendencies and were soon able to enforce the victory of their creed by compulsory education and the sword of secular power. That triumph, however, would have been consummated even without such allies. The seed of anti-naturalism had fallen on a receptive soil. The anti-physical principle of the new religion strongly recommended itself to



an era of physical degeneration. Effeminate sensualists welcomed the discovery that "physical exercise profiteth but little." The victims of decrepitude consoled themselves with the hope of a better hereafter. Envious impotence denounced the worldliness of physical recreations. Mental emasculation, too, was glad to exchange the pursuits of philosophy for the duties of faith and spiritual subordination. By dint of persistent inoculation the dogmas of pessimism gradually acquired the strength of hereditary instincts; the nations of Southern Europe learned to crave for the moral opiates of their priesthood, as a generation of inebriates learns to crave for the influence of spirituous narcotics; and when the manlier nations of the North shook off the yoke of spiritual bondage, the Latin races continued to hug their fetters—not by the accident of political vicissitudes or hierarchical compulsion, but as an inevitable consequence of deep-rooted race tendencies. Italy would have burnt Martin Luther, as she burnt Bruno and Savonarola; with or without Martin Luther Germany would sooner or later have burnt the papal bull. Like other errors of dualism, the doctrines of other-worldliness were always strongly repugnant to the naturalistic instincts of the German race. They had indured that doctrine as an unwilling patient might indure the taste of a virulent drug, which to others may have become a mind-enslaving tincture, but which to him never ceases to be repulsive to a degree revealed in the opportune moment of emancipation from the thralldom of the drug-monger. And though in breaking their fetters, the Northern Aryans could not break the entrenched strongholds of supernaturalism, their home-creed is fast reverting to the type of a pure monism. In a thousand days the listener at the fireside of a thousand German and Anglo-American homes would not be apt to hear a single allusion to the vagaries of dualism; the fancies of other-worldliness, preternaturalism and spiritism are as downright distasteful to a large plurality of our Germanic contemporaries as the dogmas of St. Boniface were to the countrymen of Wittekind. After a millennium of dogmatic intrigues race tendencies have prevailed against the combined power of secular and spiritual despotism.

#### THE FUNDAMENTAL PROPERTIES OF MATTER.

BY J. G. VOGT.

##### I.

*Translated from the German by F. W. Norton.*

Despite the vast acquisitions of the natural sciences—the blinding flood of light which they have cast upon us—we must not overlook their great imperfections—their shadow side. Observation and the ceaseless collection of astonishing facts keep swelling the storehouse of knowledge. Before it we stand with covetous looks; and in its boundless riches the scientist revels. With weak and uncertain strides the *thinker* makes his way.

Speculation is under ban and bar. In the blind self-assertion of empiricism, this, the most powerful weapon of the human mind, which has led it to its proudest victories, is to-day cast aside in contempt. A systematic treatment of the empirical matter of the universe, a philosophical insight into scientific acquisitions, is a thing which is neither honored nor striven for. Precious as are the revealed treasures, says Haeckel in strict truth, our modern scientific knowledge resembles a promiscuous stone heap which must be sorted and brought to a systematic structure before it can acquire real worth.

Instead of regarding the world as a whole, and uniting observed facts together according to their causes so as to make possible an explanation of the universe, every scientist takes a piece of the world, dissects it and analyzes it. Untroubled by the import of others, this particular part is for him the world, which, in his own way, he seeks to explain. If, however, this world is a systematic whole, and we cannot think of it otherwise, then any phenomenon which is taken from this whole cannot be explained by itself alone. When a scientist deviates from this, the only correct point of view, and seeks to explain things by themselves and not in connection with the universe, all experiments, as, for instance, those touching the phenomena of life or intellectual activities, must end in a pitiable failure. The physicist arranges his atoms and their powers, without troubling himself about biology and physiology; he constructs his mechanism of the world without the slightest reference to the phenomena of life and their tendencies. And so, on the other hand, biology constructs an organic substance, without questioning in respect to it, whether the inorganic phenomena may not be deduced from it.

For matter or world-substance (which includes the two great groups, organic and inorganic phenomena), we have first of all to seek a fundamental conception—one which will contain in itself, unconditionally, the elements for the world's vast series of evolutions, in both realms. With what blindness this greatest of all requirements is neglected, and how all logical thought is retarded and kept working on the surface of phenomena, is shown, for example, by the attempts that have been made to explain, and even to imitate, the origin of the first germs of life. Equally unfortunate have been the attempts, hitherto made, to explain spiritual phenomena; they have always reverted to the idealistic fallacy. I merely recall here the false conclusions of a modern kind of monism, which is at present popular, and which in some respects surpasses idealistic dogmatics in superficiality.

This wrong monism starts from the same fundamental conception as we do. It attributes to matter the two fundamental properties, motion and sensibility



or feeling; and concerns itself with deducing from this principle of sensibility or feeling the organic and spiritual phenomena. But how greatly does this false view of monism err in this! Instead of deducing from these elementary properties the higher phenomena of evolution, it transforms the most complex conditions and processes into elementary substance itself. The organic impulses, the most complicated qualities and modes of feeling, the intellectual forms of intuition respecting space, time and causality, it attributes directly to the principle of feeling as the fundamental property of matter itself. For example, it is not enough for an atom to have simply the property of mechanical motion; it must also possess that of feeling, together with the impulses of life and order, the intuitions of space and time, the idea of causality, and the like! Who does not see that this is not accomplishing a solution of the riddle, but is merely evading a solution? Idealism is only tricked out with another name and another form.

If we examine the conceptions of matter or substance, which have been framed for the world's mechanism, we find the most popular to be the *kinetic*, that lying at the foundation of modern mechanics. From of old, this has offered at least the prospect of explaining organic and even spiritual phenomena. The idea, however, of a hard particle of matter vibrating in empty space, and acting only by its impact, is inconceivable. The deduction of any reasonable and conscious action from such a fundamental principle, from this incorporation of blind chance or willess, purposeless force—how can such a theory recommend itself to thinking minds! Yet the philosophical necessity of our physics compels us, in the face of the manifold operations of the organic world, to pay homage to such a principle. Permit me, then, for the sake of establishing my own position, to adduce something further.

The only conception of matter, which affords us here a free course, is founded, in direct opposition to separate particles vibrating in empty space, on the idea of a *continuous*, contractile, elastic matter (*Weltschubstanz*, the world-substance), which fills the illimitable space without interruption, and whose sole manifestation of power consists in *contraction* or *condensation*. In consequence of this energy of condensation we have to conceive of the world-substance as *differentiated*; i. e. it is composed of infinitely small centers of condensation, which are severed from one another, yet without being separated by empty space from one another. There is thus expressed merely the individualization which meets us in an unmistakable way in all cosmic phenomena and which has received its most complete and correct expression in the former atomistic theories. These centers of condensation exactly represent the atoms or primitive atoms of the old ideas of matter. Imagine, for example, a rubber plate stretched over a table and fastened at the

edges of the table. On this rubber plate let any number of hands be placed, flatwise, at equal distances. If these hands now close *uniformly* the rubber in the palms of the hands shrinks or concentrates. Thus it is clear that in the spaces originally empty, that is where no hands were laid, a state of tension in the rubber mass must take place. This tension will soon reach a maximum; and if from this moment any one of the hands closes still more and thus grasps a greater amount of rubber, this mass will continue to shrink only on condition that a supremacy be gained over one or more other hands, i. e. that the latter relax in a corresponding degree. This comparison is a crude one, it is true, but it affords us approximately the best standpoint for a comprehensive view.

We can ascribe to the centers of condensation a *medium* degree of density which we may call zero; from which, on the one side, they condense to a maximum degree, and from which, on the other, they expand to a corresponding maximum degree, according as they are compressed or dilated. Now, let us call every advancing condensation a positive fluctuation and every retreating expansion a negative fluctuation. Thus we have a maximum value for the positive and a maximum value for the negative fluctuations. According to the fineness of the distinction we wish to draw, we can interpose any number of changes in volume between the two maximum values. In other words, a center of condensation may require millions or billions of condensation vibrations before it passes from the maximum degree of the negative fluctuations to the maximum value of condensation. It must, then, be unquestionably true that the *exclusive tendency* of matter is *condensation*. Every center of condensation strives intensely toward the positive maximum value; and every relaxation, every negative fluctuation, can only be *pushed* or *forced upon* a center of condensation. If it has experienced such a negative fluctuation, it always seeks to free itself from this; and only when the opposition of the surrounding centers of condensation is too great for it to overcome does it retain the negative fluctuation received. Every condensation, every positive fluctuation, suffers a diminution of volume; every negative fluctuation, on the other hand, an increase of volume; and, since we regard matter as continuous, it clearly follows that for every positive fluctuation of a center of condensation a negative fluctuation of one or more other centers must follow. Every approach to a center of condensation influences the affected centers, so as to cause a further condensation.

On this transference of condensation impulses depend the enormous series of physical phenomena, in which is rooted the nature of heat, light, electricity, etc. I have in a larger work, "Force; a Monistic View of the World" (Leipzig, Haupt & Tischler, 1878), explained



how, by the opposition of positive and negative fluctuations, the compression and expansion of centers of condensation, the entire mechanical world-process springs into life and exhausts itself; how whole groups of centers of condensation united and formed the first germs of the spheres; how the masses in the intermediate space were forced to absorb from these condensed planetary bodies their condensation impulses; how thereby the fundamental distinction between ether and matter gradually shaped itself; how by the intensified ethereal masses the phenomena of motion and gravitation were called into being; in short, how by transference of condensation impulses the physical powers of light, heat, electricity, magnetism and chemism can be fully explained.

(To be continued.)

### SOCIAL PROBLEMS.

THE OPEN COURT presented in its latest issues two essays on social problems, "The Ethics of Economics" by Gould, and "National Taxation" by Anti-monopolist. The one proposes as a solution of the social question an "equivalence of service" which should be realized by a system of co-operation; the other suggests in the place of our import duties an income tax which should be assessed under oath. Both articles are interesting reading; they are also keen in their arguments so far as they are negative, showing the weak points in the position of their adversaries. Both call for reform and demonstrate that it is greatly needed. But concerning the means by which they would improve the present state of things, we cannot agree with them. The co-operative system, as suggested by Mr. Gould, has hitherto proved a failure because in this scheme one important factor is omitted. Only *profit-sharing* is taken into consideration; but it is forgotten that this must necessarily imply *loss-sharing* also.

The proposition of Anti-monopolist to introduce a taxation of income is an interference with the personal liberty of the citizens by subjecting their business and their books to the inspection of the tax-gatherers. There can be no doubt that real estate, the immovable property which cannot be hidden and is easily assessed, is the fittest object for taxation. Also luxury can be taxed in consideration of the fact that many people like the display of certain luxuries because they are expensive. An income tax will always be objectionable and if it is based on self-assessment, it will be a premium to the unscrupulous and dishonest.

### THE HEROES OF FREE THOUGHT.

Who are the heroes of free thought? Those who smile at religious sentiment and think that "religion is good for the masses while the educated naturally stand above any religious emotion"—or those who struggle and yearn for truth, who suffer for it and advance

slowly, but earnestly, on the path of human progress? The former may be more advanced in refinement, knowledge and worldly wisdom, but the latter only are the heroes of free thought. Such men were Giordano Bruno, Spinoza, Luther, Lessing, Hume, Kant and others, and it is noteworthy that almost all of them were not only from childhood earnestly pious, but that they also came from families where religion was more than the mere observance of ceremonial rites.

Let us confine ourselves to the best known of such characters. David Hume is a Scotchman, whose ancestors were, as are all the old Scotch people, very devoted Puritans. Kant, also, is of such Puritan Scotch origin, and we know that his mother was a devout Christian.

Spinoza is a Jew. His parents left their home in Spain for Holland, in order to remain faithful to the religion of their ancestors. They might have comfortably remained in Spain if they had abjured their belief and turned Christians. The religious spirit of Spinoza's writings is fully appreciated even by his adversaries, and he showed this religious spirit in practical life when, for the sake of truth, he scorned the terrible curse of the synagogue, in the teachings of which he had been educated.

Luther's faith and love of truth is an historic fact. He was a hero of free thought, which his contemporary, the great Pope Leo X., was not. Pope Leo was a free-thinker of the modern stamp. Luther was a firm believer, Leo was an unbeliever. Luther had faith in God like a child. Pope Leo was unhindered by any credo and at the same time was a protector of art and a promoter of humanitarianism. He did much for the Renaissance in resuscitating Greek letters and Greek culture. He built the glorious Cathedral of Saint Peter's at Rome and to show his Hellenic spirit he placed upon the cross formed by the four great aisles of the largest church on earth a cupola resembling the pagan Pantheon. In his heart Greek paganism triumphed over Christianity.

Compare this great Mæcenæ, the free-thinker, the humanitarian, the erudite man, with the poor, almost illiterate Augustine monk. Would you then have recognized the power of free thought in the latter and the lack of it in the former? What gave to the simple-hearted believer the strength to lead humanity one great step onward, so as to gain for every man the freedom of his conscience—the Christian's liberty, as Luther called it? It was not that he believed less of the dogmatic Christianity, but that his religious faith was stronger. Pope Leo was indifferent to religion; he was a free-thinker, and, upon receiving the Peter's pence, spoke of "the profitable fable of Christ." He appreciated and understood Luther's opposition so little that he thought his preaching against Tetzel's sale of indulgences was



mere jealousy of the Augustine monk's against the Dominican Order, to whom the sale was entrusted. Leo could not imagine that any one would endanger his life for the sake of conviction.

Luther very probably would have been shocked had he foreseen that humanity would advance on the path of religious free thought. He did not see so far. But it was better for him and better for the cause which he boldly defended. We, however, should learn from the juxtaposition of those two men, Leo X. in all his papal splendor and the poor monk Martin in his simple faith, that the heroism of free thought is no mere indifferent negation of religious dogmatism, but strong faith—religious faith—and confidence in truth. Let us boldly and consistently think the truth, let us speak the truth modestly but firmly, that is the spirit by which the heroes of free thought became a power and rose above their time so as to lead humanity to higher and nobler aims. P. C.

#### DEATH AND MAY.\*

BY LOUIS BELROSE, JR.

How calmly beautiful! The moonlight covers  
The vale and woodland with a mystic haze  
And over all a brooding spirit hovers,  
The phantom of itself in other days.

The warmth of spring is on the ground new-broken;  
The birds are in their nests upon the tree;  
The blossom and the bud alwhere give token;  
O Death, cold Death, lift up your eyes and see!

Lift up your eyes—have I not owned your power?—  
And see what thing it is that makes me grieve,  
What wealth of beauty May has brought for dower,  
What wealth of beauty you would have me leave.

See there where young Love walks and youth and  
maiden

Follow without misgiving as he goes;  
The weight wherewith their longing hearts are laden  
But shadow of the coming of the rose.

Look up and see the star that like an ember  
Fades slowly as the rising moon takes height—  
An eye made dim with bliss; O Death, remember  
How once I thought your dark was blinding light.

Anon the levant sky will send a warning  
And all that fear the sun will hide away,  
Another world will wake to greet the morning  
And joys of night give place to joys of day.

Look up and see the glory and the gladness  
That I forewent to make myself your thrall.  
Fear not! no hope can come to rend the sadness  
That clothes around my spirit like a pall.

O Death, no sword of yours alone had harmed me;  
This leaden hand was strong in fence and youth;  
Mine eyes that looked on yours when you disarmed me  
Were dazzled by the sudden glare of Truth.

I yield, but let me dream a single hour,  
O, let me dream of what life was to me,  
And feel as then once more in all its power  
The magic of the Mays that used to be.

Smile on! my heart has learned to brook derision;  
For that the lessons of the world suffice;  
Smile on! It comes again as in a vision,  
That sense of something in the moon-lit skies!

It comes! it fills the distance where the haze is,  
Beyond the valley where the woodlands part;  
I feel it rolling through the forest mazes;  
It comes, it comes! I feel it in my heart!

O joy! Breathe low, the violets are sleeping.  
O joy! Breathe low and let the flowers dream.  
My little friends, the blades of grass, are weeping,  
But all for joy—see how their bright tears gleam!

No sound but that strange swell that seems to number  
The world's heart-beats; no night-bird's call to break  
The silence of the myriads that slumber,  
The silence of the myriads that wake.

The wood, the vale, where was it that I knew them  
As now they are? in what forgotten days?  
Two lovers that I know come walking through them.  
A bit of England out of Shakespeare's plays!

I feel old lands beyond the vague horizon  
Where once the spring made warm our new-land  
blood,

Beyond, beyond, a shore my soul keeps eyes on,  
A distant shore, unwashed of earthly flood.

On such a night we stood where swift and swollen  
The river ran, and watched the moon-lit wave,  
Till passed a cloud, when love's first kiss was stolen;  
By yon pale star was seen the first she gave.

Sweet influence of earth and heaven blending  
Toward fruitful harvest of the seed new-sown!  
A mystic promise of the life unending;  
A matchless vision of the joys unknown.

A dream, a dream! O Death, is joy but dreaming?  
Our lives are fallen upon evil days;  
Time was when all fared on through hopeful seeming,  
But we have reached the parting of the ways.

Our comrades go where yet the roadside flowers  
With all the bloom that makes our old selves yearn,  
We walk in dust and feel no soothing showers;  
Our grief it is to know that they must turn.



No gilded cloud, no fond mirage deceives us,  
We walk in dust along unfruitful lands,  
And all the way one only thought relieves us,  
That toil may thrive. Our hope is in our hands.

Farewell the vision of a joy found hollow;  
Heart's ease of things unending now farewell.  
Fare with us love for all that need must follow;  
Fare with us strength to build where they must dwell.

For us the night, for them shall be the morrow,  
False hope forgot and groundless faith laid by;  
The rising sun will brighten every sorrow  
When stars are all we look for in the sky.

We know they dream, the friends from whom we  
parted,  
We know they dream and know that they must  
wake.

They dream in peace and we are heavy-hearted;  
What can we give for all the dawn must take?

When cold and dim the Truth's first rays fall slanting  
On eyes that open but that leave the heart  
As yet a little while to sleep's enchanting  
We'll light the fires and do the morning's part.

And though we bring but little store of promise,  
One grief that we have known they shall not know;  
The feeling of all fellow-souls far from us,  
The loneliness that doubles every woe.

Man's heart must cling to something. Shall it never  
Have rest in hope that Time cannot destroy?  
O heart, be comforted, for man's endeavor  
Shall find the gradual peace that turns to joy.

## CORRESPONDENCE.

### CHILDREN'S THEOLOGICAL SAYINGS.

To the Editor: WORCESTER, MASS., February, 1888.

Readers of *THE OPEN COURT* will be interested in a droll discussion that has cropped out in a recent number of that excellent mother's magazine, *Babyhood*. This journal has a department entitled, "High-Chair Philosophy," in which the amusing sayings of children on all possible topics, and among others on theology, are chronicled; and an English mother has written to protest against the publication of these latter as sacrilegious. It is wrong, she urges, to laugh at such things. When a child prays, "Give us this day our daily bread, with butter and jam both," she thinks this sweet prattle too sacred for the world to joke and laugh about. To this the editor of *Babyhood* replies that no question can be more important than the process by which children acquire their religious beliefs, and the best way to study this process is by collecting children's sayings on religious topics. "Such a study may enable us to do much toward preventing the mind at its earliest development from wandering into all kinds of fantastic notions." It may be added, also, that the mirth provoked by these sayings seems of the most innocent kind, for it is the mirth of love. Moreover, the questionings of the young have often served a good purpose by opening older eyes to the absurdities of some false belief. "Let the world beware when a thinker is

born," says Emerson, and are not all children thinkers? Their inquisitive minds refuse to accept off-hand the conventional beliefs that satisfy grown-up people, and on the whole the circumstance is to their credit. They believe in looking into things; and the whole history of rationalism lies potentially in the child who asks its mother whether God wears a hat. XENOS CLARK.

### THE TITLE "OPEN COURT" AND ITS PROPRIETY.

MR. HEGELER: NEW YORK CITY, Feb. 27, 1888.

Dear Sir—Why not change name of *THE OPEN COURT* to the one you originally proposed, "The Monist"? You had a definite purpose in establishing the paper—the diffusion of "Monism." You yielded to the proposition to give the paper the name suggested by Mrs. Underwood in order to overcome the objections of the Underwoods—proper enough perhaps from their agnostic standpoint, but without validity from your monistic point of view. Now change the name; make it definite, and also make the purpose and spirit of the paper definite and consistent. What have such articles as Trumbull's, Whipple's, Woolley's, Gould's and Cole's to do with Monism? What have eight out of ten of the articles in the last issue to do with Monism? Give us more of your own thought relating directly to Monism and eliminate irrelevant discussion, such as abounds in Nos. 25 and 26, and thereby show your readers that you have a definite purpose. Invite discussion of your Monistic views. Intelligent readers are tired of the common place of philosophy and theology.

Yours truly,

A MONIST.

[The advice given in the above letter is no doubt well intended, but it is not wise to change the name of a journal after it has once become established, especially when its main purpose is clearly expressed on its title page. "To reconcile religion with science," in order that they may work harmoniously together in the elevation of mankind, is the object of *THE OPEN COURT*. This mission, in the opinion of the founder and the editor of *THE OPEN COURT*, is to be performed by Monism. Monism is not a side-issue, but the fundamental principle of philosophy, a principle whose branches extend over the whole domain of science and ethics and draw nourishment from every truth in the world.

The title of this journal is an invitation or friendly challenge to all opponents to disprove if they can the Monistic argument contained in the editorial columns and in the varied contributions to *THE OPEN COURT*. To this end all intelligent criticism is given welcome, and also such contributions are acceptable as do not agree with the owner's and editor's views, although both reserve their rights to state their differences of opinion when at variance with the contributors. By this method it is hoped that the aim of the journal is best attained and in this sense the name of *THE OPEN COURT* is fully warranted.

If "A Monist" will read again the articles to which he takes exception, he will find that most of them contain a moral related more or less to the religious and ethical principles found in Monism as a conception of practical life which includes within it every duty. The physical sciences and the moral sciences harmonize in Monism and their laws confirm its claims. Physiology is an important part of religion, although it is generally classed among the natural sciences, and the study of it is necessary to a correct understanding of Monism. And so of politics, ethics, law and all the relations of men in church, in state and in private life.

The Nos. 25 and 26, mentioned by our correspondent, are full of monistic thought. The homely philosophy of "Wheelbarrow" is Monism in a laborer's garb. Prof. Gizecki is a professed adherent of Monism. "The Value of Doubt," by Gen. Trumbull, is not a tribute to agnosticism. He does not



deify doubt, he merely recommends it as a means for avoiding error, and obtaining a definite statement of the truth. He might have called "doubt" criticism or self-criticism, but we cannot quibble so closely with our contributors about words. The other articles in those numbers have a Monistic moral, especially the editorials and the story of "The Lost Manuscript." Its pages one by one are full of Monism. I remind the reader of the thoughts expressed on the occasion of the storm, during which the great fir-tree was smitten by lightning. How far many of the essays arrange themselves into the frame of THE OPEN COURT may be learned from our circular which will accompany this number.

We shall be very glad to hear from our correspondent again.]

## BOOK REVIEWS.

BIOGRAPHIES OF WORDS AND THE HOME OF THE ARYAS. By F. Max Müller. London: Longmans, Green & Co. New York: 15 East Sixteenth street; 1888.

The author says in the introduction:

"If what I have tried to prove in my *Science of Thought*\* is true, if thought is impossible without language, as language is without thought, many things will follow, not dreamt of yet in our philosophy. But leaving aside these graver matters for the present, there is one thing which, as everybody can see, will follow by necessity from the admission of the inseparableness of language and thought, and that is that all thoughts which have ever passed through the mind of men must have found their first embodiment, and their permanent embalment, in words.

"If then we want to study the history of the human mind in its earliest phases, where can we hope to find more authentic, more accurate, more complete documents than in the annals of language? \* \* \*

"Our words are not rough, unhewn stones, left at our door by a glacial moraine; they are blocks that have been brought to light by immense labor, that have been carved, shaped, measured and weighed again and again, before they became what we find them to be. Our poets make poems out of words, but every word, if carefully examined, will turn out to be itself a petrified poem, a reward of a deed done or of a thought thought by those to whom we owe the whole of our intellectual inheritance, the capital on which we live, with which we speculate and strive to grow richer and richer from day to day.

"Every word, therefore, has a story to tell us, if only we can break the spell and make it speak out once more." \* \* \*

And Max Müller understands how to make words tell their stories:

"What is, for instance, the meaning of the word Father? Has any more plausible interpretation been offered than that it meant feeder, protector, ruler? Pater, Sk. pitar, consists of a radical element Pa, and a derivative element tar. The root of PA means to feed in pa-bulum, food; it means to protect in Sk. go pa, cow-herd; and it means strong, ruler, king, in Sk. pa-ti, lord, *hro-pa-ti*, lord, potis, strong. Some scholars may doubt about the connection of pa in pati with pa in pater, but the fact that father was intended by the early Aryas as a feeder, protector, and lord, would not be in the least affected by this. Which of these three meanings was present to the mind of the original framers of the word it is impossible to say. A root lives in its derivatives, and its meanings are called out and differentiated by the varying purposes which it is made to serve. But whether the Aryas, before they were broken up into Hindus, Persians, Greeks, Italians, Teutons, Slaves, and Celts, conceived the father as a feeder, or a protector, or a ruler, it is quite clear that they could not have framed such a name during the so-called metrocratic

stage, when, as we are told, the mother was the feeder, protector and ruler of her young, and the father no more than a casual visitor. \* \* \*

"When we find such a name as *pasu* in India, Italy, and Germany, used in the sense of cattle, we know that the people who used such a word must have tethered their cattle, for *pasu* comes from a root PAS, to fetter. \* \* \*

"The name for king, *ganaka* in Sanskrit and *chuning* in German, seems to me still, as it did years ago, a very strong argument in support of the patriarchal theory of government. For it could only be among people where the father (*ganaka*) wielded the highest authority that the name for father could become the name for king, as *gani*, wife, became the name for queen, Gothic *quino*. \* \* \*

"Wherever we analyze language in a truly scholarlike spirit, whether in Iceland or Tierra del Fuego, we shall find in it the key to some of the deepest secrets of the human mind, and the solution of problems in philosophy and religion which nothing else can supply. Each language, whether Sanskrit or Zulu, is like a palimpsest, which, if carefully handled, will disclose the original text beneath the superficial writing, and though that original text may be more difficult to recover in illiterate languages, yet it is there nevertheless. Every language, if properly summoned, will reveal to us the mind of the artist, who framed it, from its earliest awakening to its latest dreams. Every one will teach us the same lesson, the lesson on which the whole Science of Thought is based, that there is no language without reason, as there is no reason without language."

The book contains the biographies of many words which are extremely interesting and it reveals the earliest civilization of our Aryan ancestors as can be reconstructed from their language.

The appendices are no less valuable. They contain Max Müller's correspondence concerning Aryan Fauna and Flora, the original home of the Jade, the original home of the Soma, and other topics.

JOURNAL D'UN PHILOSOPHE. PAR LUCIEN ARRÉAT. Paris: Felix Arcau; 1887.

Lucien Arréat is one of those Frenchmen who have affiliated themselves with the modern school of psychology as expounded by Ribot, Binet and others. This he says of himself: "*J'ai mordu à la psychologie nouvelle*" (I have partaken (bitten into) of the modern psychology).

In the introductory chapters of his book, *Journal d'un Philosophe*, p. 4, seq., he says:

I do not dare to attempt to repeat what passed in my little brain. But few of the events remain in my thoughts. Am I really the same one who played at *cligne-Musette* and in whose blond beard the silver threads now mingle? In those happy days of childhood I see myself double, triple and multiple, and that is still myself in whom the devil used to be.

The devil is still there. The child was an imp and the man is no angel either. See me here writing a history of the time when I did not know my letters; a wise history which would surprise the rough boys, who afterward jumped upon my back at leap-frog, and for awhile my little self would rebel in pride; but my big self takes no notice of it, as of the whim of a spoiled child. Are there more wonderful adventures or more astonishing fairy tales? The sensations which come to our consciousness, the network of nerves constituting memory, a special activity which connects the events of the soul, and the personality which issues therefrom! Let more clever ones than I explain it if they can.

Every one of us is like a worker of tapestries, seated at his trade behind the flexible screen, passing the needles filled with wool through the extended canvass. We step before it to judge of our work, but the visitor, anxious to see the proceeding, passes

\* *The Science of Thought*, by F. Max Müller. Longmans, 1887.



behind it and comes to the bench of the worker. Thus the rich patterns of our thoughts have a side which we scarcely know. It is true that we ourselves have done the work; but unfortunately we do not know any the better for it how our hand wove the threads into cloth, nor how it guided the needle, and if we do turn a completed tapestry we cannot at first see anything but knots and ends hanging from it. We would have to see it in progress and to inquire into the thread of the warp as well as into the color of the wool."

In one of our next numbers we shall publish an essay from the above-mentioned volume.

### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

#### CHAPTER VIII.—*Concluded.*

All gazed in horror at the object on the ground.

"This is a serious answer to your question," exclaimed the proprietor. "We pay a dear price for the sport."

He took the light and himself searched the opening; a heap of bones lay there. The others stood around in uncomfortable silence. At last the proprietor threw a skull out into the cellar, and cried out cheerfully, as a man who is relieved from painful feeling:

"They are the bones of a dog!"

"It was a small dog," assented the stonemason, striking the bone with his iron. The rotten bone broke in pieces.

"A dog!" cried the Doctor, delighted, forgetting for a moment his blighted hope. "That is instructive. The foundation wall of this house must be very old."

"I am rejoiced that you are contented with this discovery," replied the proprietor, ironically.

But the Doctor would not be disconcerted, and related how, in the early middle ages, there had been a superstitious custom of enclosing something living in the foundation wall of solid buildings. The custom descended from the ancient heathen times. The cases are rare where such things are found in old buildings, and the skeleton of a beast is an indisputable confirmation.

"If it confirms your views," said the proprietor, "it confirms mine also. Hasten, men, to replace the stone."

Now the stonemason lighted up and felt again in the opening and declared that there was nothing more there. The workman restored the stone to its place, the wine was replaced and the matter settled. The Doctor bore the jeering remarks, of which the proprietor was not sparing, with great tranquillity, and said to him:

"What we have discovered is certainly not much; but we know now with certainty that the manuscript does not lie in this part of your house, but in another. I take with me a careful record of all the hollow places in your house, and we do not give up our claims in regard to this discovery; but we consider you from

this time as a man who has borrowed the manuscript for his own private use for an indefinite time, and I assure you that our wishes and desires will incessantly hover about this house."

"Pray allow the persons who dwell there to participate in your good wishes," replied the proprietor, smiling, and do not forget that in your researches after the manuscript you have in reality found the dog. For the rest, I hope that this discovery will free my house from the ill-repute of containing treasures, and for the sake of this gain I will be quite content with the useless work."

"That is the greatest error of your life," replied the Doctor, with grave consideration; "just the reverse will take place. All people who have an inclination for hidden treasure will take the discovery in this light, that you are deficient in faith and have not employed the necessary solemnities, therefore the treasure is removed from your eyes and the dog placed there as a punishment. I know better than you what your neighbors will record for posterity. Tarry in peace for your awakening, Tacitus. Your most steadfast friend departs, and he whom I leave behind begins to make undue concessions to this household."

He looked earnestly at the Professor and called Hans to accompany him on a visit to the village, in order to take a grateful leave of his old crones, and to obtain one of the beautiful songs of the people, of which he had discovered traces, to take home with him.

He was gone a long time; for after the song there came to light unexpectedly a wonderful story of a certain Herr Dietrich and his horse, which breathed fire.

When, toward evening, the Professor was looking out for him, he met Ilse who, with her straw hat in her hand, was prepared for a walk.

"If it is agreeable to you," she said, "we will go to meet your friend."

They walked along a meadow between stubble-fields, in which here and there grass was to be seen peeping up amongst the stubble.

"The autumn approaches," remarked the Professor; "that is the first sign."

"Winter-time is tedious to some people," answered Ilse, "but it puts us, like Till Eulenspiegel, in good spirits, for we enjoy its repose, and think of the approaching spring; and when the stormy winds rage round us, and the snow drifts to a man's height in the valleys, we sit at home in warmth and comfort."

"With us in the city the winter passes away almost unheeded. The short days and the white roofs alone remind us of it, for our work goes on independently of changing seasons. Yet the fall of the leaf has from my childhood been depressing to me, and in the spring I always desire to throw aside my books and ramble through the country like a traveling journeyman."

\* Copyright.



They were standing by a bundle of sheaves. Ilse arranged some of them as a seat, and looked over the fields to the distant hills.

"How differently you and I regard everything," she began after a pause. "We are like the birds which year after year joyously flap their wings and live here contentedly; but you think and care about other times and other men that existed long before us; you are as familiar with the past as we are with the rising of the sun and the forms of the stars, and if the end of summer is sorrowful to you, it is equally as sorrowful to me to hear and pore of past times; and books of history make me very sad. There is so much unhappiness on earth, and it is always the good that come to a sorrowful end. I then become presumptuous, and ask why has God thus ordered it? It is really very foolish to feel thus, but for that reason I do not like to read history."

"I understand this tone of mind," answered the Professor, "where men strive against their times to establish their own wills, they will almost always in the end succumb as the weaker; even what seems to be successfully established by the strongest minds has no lasting duration. Like men and their works, nations also pass away; but we should not let our hearts cling to the fate of individual men or nations, we should endeavor to understand why they became great and passed away, and what lasting benefit the human race has gained by their life. Then will the narrative of their fate be only a veil, behind which we discover the working of other living powers. We find that in the men who break down, and in the nations that pass away, there is a higher secret life, which according to internal laws is continually creating and destroying. To discover some of the laws of this higher life, and to feel the blessing which this creating and destroying has brought to our existence, is the task and the pride of the historical inquirer. From this point of view, destruction and dissolution are changed into new life, and increasing certainty and elevation of heart comes to those who are accustomed to consider the past."

Ilse shook her head and cast down her eyes.

"And the Roman whose lost book brought you to us, and of which you have been talking to-day, is interesting to you because he has looked upon the world as cheerfully as you have?"

"No," answered the Professor, "it is just the reverse which impresses one in his work. His earnest spirit could never rise to joyful confidence. The fate of his nation and the future of mankind lay heavy on his soul as a secret riddle; he perceived in the past a better time, freer governments, stronger characters and purer morals; he perceived a decline in his people and in the state, which even good governors could no longer retard. It is strange how the thoughtful man doubts whether this fearful fate of millions is the punishment

of the Deity, or the result of there being no God who cares for the lot of mortals." Forebodingly and ironically he contemplates the history of individuals, and his wisest course is to bear the inevitable silently and patiently. When, even for a moment, a brief smile curls his lips, one perceives that he is looking into a hopeless desert; one can imagine fear visible in his eyes, and the rigid expression which remains on one who has been shaken to the innermost core by deadly horrors."

"That is sad," exclaimed Ilse.

"Yes, it is fearful, and it is difficult to understand how any one could bear such a hopeless life. The pleasure of belonging to a nation of growing vigor was not then the lot of either heathen or Christian, for the highest and most indestructible happiness of man is to have confidence in that which exists, and to look with hope to the future,—and such is our life now. Much that is weak, corrupt and perishable surrounds us; but with it all there grows up an endless abundance of youthful vigor. The root and the trunk of our popular life are sound. Everywhere we find domestic life in families respect for morals and law, hard but valuable labor and energetic activity. In many thousands the consciousness exists that they increase the national strength, and in millions that are still far behind them the feeling that they also are striving to contribute to our civilization. This is our pleasure and glory in modern times, and helps to make us valiant and proud. But we well know that the joyful feeling of this possession may also be saddened, for temporary disturbances come to every nation in the course of its development. But its power of thriving cannot be thwarted, nor its career hindered, so long as the power and soundness of these securities exist. It is this that gives happiness to one whose vocation it is to investigate the past, for he looks down from the salubrious air of the heights into the darkness beneath him."

Ilse gazed on him with wonder and admiration, but he bent over the sheaves which were between them and continued with enthusiasm:

"Everyone forms the judgment and mood with which he contemplates the great relations of the world according to the course of his own personal experiences. Here you look around on the laughing summer landscape, there on the busy men in the distance, and on what lies nearer your heart, your own home, and the circle in which you have grown up. How mild is the light, how warm the hearts, how sensible, good and true the hearts of those that surround you! You may believe how valuable it is to me to see this, and enjoy it by your side, and if henceforth, when occupied with my books, I deeply feel how noble and worthy is the life of my countrymen around me, I shall ever have to thank you for it."

He stretched out his hand across the sheaves; Ilse



seized it and clasped it between hers, while her warm tears fell upon it. She looked at him with her moistened eyes, while a world of happiness lay in her countenance. Gradually a bright glow suffused her cheeks, she rose, and a look full of devoted tenderness fell upon him; then she walked hastily away from him along the meadow.

The Professor remained leaning against the sheaves. The meadow-larks on the tips of the ears of grain over his head warbled joyfully. He pressed his cheek against the stack which half concealed him; thus, in happy forgetfulness, he watched the maiden, who was descending toward the distant laborers.

When he raised his eyes his friend was standing by him; he beheld a countenance which quivered with inward sympathy, and heard the gentle question:

"What will come of it?"

"Husband and wife," said the Professor, decidedly; he pressed his friend's hand, and strode across the fields to the songs of the larks which greeted him from every sheaf.

Fritz was alone; the word had been spoken; a new and awful fate overshadowed the life of his friend. So this is to be the end of it? Thusnelda, instead of Tacitus—ah, Fritz felt that the social custom of marriage might be a very venerable institution; it was inevitable for almost all men to pass through the uprooting struggle which is the consequence of a change in the mutual relations of life. He could not think of his friend amid his books, with his colleagues, and this woman. He felt painfully that his relation to the Professor must be changed by it. But he did not think long of himself, but anxiously worried about his rash friend; and not less about her who had so dangerously impressed the soul of the other. The faithful friend looked angrily upon the surrounding stubble and straw, and he clenched his fists against the deceased Bachhuber; against the valley of Rossau; nay, even against it, the immediate cause of the mischievous confusion—against the manuscript of Tacitus.

#### CHAPTER IX.

ILSE.

Ilse had lived an unvaried home life since the death of her mother. Though scarcely grown up, she had taken charge of the household; spring and autumn came and went; one year rolled over her head like another; her father and sisters, the estate, the laborers, and the poor of the valley—these formed her life. More than once a suitor, a sturdy, worthy proprietor of the neighborhood, had asked her in marriage of her father; but she felt contented with her home, and she knew that it would be agreeable to her father for her to remain with him. In the evening, when the active man rested on the sofa, and the children

were sent to bed, she sat silently by him with her embroidery, or talked over the small occurrences of the day—the illness of a laborer, the damage done by a hail storm or the name of the new milch cow. It was a lonely country; much of it was woodland; most of the estates were small; there were no rich neighbors; and the father, who had worked his way by his energy, until he became an opulent man, had no inclination for society life, nor had his daughter. On Sunday the pastor came to dinner, and then the father's farm inspectors remained and related the little gossip of the neighborhood over their coffee; the children, who, during the week, were under the charge of a tutor, amused themselves in the garden and fields. When Ilse had a leisure hour she seated herself in her own little sitting-room with a book out of her father's small library—a novel by Walter Scott, a tale by Hauff or a volume of Schiller.

But now a world of thoughts, images and feelings had been awakened in her mind by this stranger. Much that she had hitherto looked upon with indifference in the outer world now became interesting to her. Like fire-works which unexpectedly shoot up, illuminating particular spots in the landscape with their colored light, his conversation threw a fascinating light, now here and now there, on outside life. When he spoke—and his words, copious and choice, flowed from his innermost heart—she bent her head as in a dream, then fixed her eyes on his face. She felt a respect commingled with fear for a human mind that soared so loftily and firmly above the earth. He spoke of the past as intimately as of the present; he knew how to explain the secret thoughts of men who had lived a thousand years before. Ah! she felt the glory and greatness of human learning as the merit and greatness of the man who sat opposite to her; the intellectual labor of many centuries appeared to her like a supernatural being which proclaimed from a human mouth things unheard of in her home.

But it was not learning alone. When she looked up at him, she saw beaming eyes, a kindly expression about the eloquent lips; and she felt herself irresistibly attracted by the warmth of the man's nature. Then she sat opposite to him as a quiet listener; but when she entered her room, she knelt down and covered her face with her hands. In this solitude she saw him before her and offered him homage.

Thus she awoke to a new life. It was a state of pure enthusiasm, of unselfish rapture, such as a man knows not and only a woman can experience,—which comes only to a pure, innocent heart when the greatest crisis of earthly existence comes to the sensitive soul in the bloom of life.

She saw also that her father was partially under the same magical influence. At dinner, which used to be so silent, conversation now flowed as from a living spring; in the evening, when formerly he used to sit wearily



over the newspaper, much was discussed, and there were frequent disputes which lasted late into the night; but her father, when he took his bedroom candle from the table, was always in cheerful humor; and more than once he repeated to himself, pacing up and down, sentences that had been uttered by his guest. "He is, in his way, a fine man," he said; "in all things stable and sound; one always knows how to take him."

Occasionally she was alarmed at the Professor's opinions. The friends, indeed, avoided what might wound the deep faith of the hearer, but in the conversation of the Professor there sometimes seemed to be a peculiar conception of venerated doctrines and of human duties; and yet, what he maintained was so noble and good that she could not guard herself against it by her own reasoning.

He was often vehement in his expressions; when he condemned he did it in strong language, and sometimes became so vehement that the Doctor and even her father withdrew from the contest. She thought then that he was different from almost all men—prouder, nobler and more decided. When he expected much of others, as is natural to one who had lived in closer intercourse with the ideal world than with real life, it alarmed her to think in what light she must appear to him. But, on the other hand, this same man was ready to acknowledge everything that was good, and he rejoiced like a child when he learnt that anyone had shown himself brave and energetic.

He was a serious man, and yet he had become a favorite with the children, even more than the Doctor. They confided their little secrets to him, he visited them in their nursery, and gave them advice according to his youthful recollections, as to how they should make a large paper kite; he himself painted the eyes and the moustache, and cut the tassels for the tail. It was a joyful day when the kite rose from the stubble-field for the first time. Then, when evening came, he sat down, surrounded by the children, like the partridge amongst her young. Franz climbed up the arm-chair and played with his hair; one of the bigger ones sat on each knee; then riddles were given and stories told; and when Ilse heard how he repeated and taught small rhymes to the children, her heart swelled with joy that such a mind should hold such intimate intercourse with simple children; and she watched his countenance and perceived a child-like expression light up the features of the man, laughing and happy; and she imagined him as a little boy, sitting on his mother's lap. Happy mother!

Then came the hour among the sheaves, the learned discourse which began with Tacitus and ended with a silent acknowledgment of love. The blessed cheerfulness of his countenance, the trembling sound of his voice, had torn away the veil that concealed her own

agitated feelings. She now knew that she loved him deeply and eternally, and she had a conviction that he felt just as she did. He, who was so greatly her superior, had condescended to her; she had felt his warm breath and the quick pressure of his hand. As she passed through the field, a glow suffused her cheeks; the earth and heaven, fields and sun-lit wood, floated before her like luminous clouds. With winged feet she hastened down into the woody plain, where she was enveloped in the foliage. Now she felt herself alone, and unconsciously seized a slender birch stem, which shook with her convulsive grasp, and its leaves were strewn all around her. She raised her hands to the golden light of the heavens and threw herself down on the mossy ground. Her bosom heaved and panted violently and she trembled with inward excitement. Love had descended from heaven upon the young woman, taking possession of her body and soul with its irresistible power.

Thus she lay a long time. Butterflies played about her hair; a little lizard crept over her hand; the white tips of the wild flowers and the branches of the hazel bent over her, as if these little children of nature wished to veil the deep emotions of the sister who had come to them in the happiest moment of her life.

At last she rose upon her knees, clasped her hands together and thanked and prayed to the dear God for him.

She became more collected and went into the open valley, no longer the quiet maiden she was formerly; her own life and what surrounded her shone in new colors, and she viewed the world with new feelings. She understood the language of the pair of swallows which circled round her, and with twittering tones passed by her swift as arrows. It was the rapturous joy of life which impelled the little bodies so swiftly through the air, and the birds greeted her with a sisterly song of jubilee. She answered the greeting of the laborers who were going home from the fields, and she looked at one of the women who had been binding the sheaves, and knew exactly what was the state of her feelings. This woman also had, as a maiden, loved a strange lad; it had been a long and unhappy attachment, attended by much sorrow; but now she was comforted going with him to her home, and when she spoke to her mistress she looked proudly on her companion, and Ilse felt how happy was the poor weary woman. When Ilse entered the farmyard, and heard the voices of the maids who had waited for her in vain, and the impatient lowing of the cattle, which sounded like a reproach on the loitering mistress, she shook her head gently, as if the admonition was no longer for her, but for another.

When she again passed from the farm buildings into the golden evening light, with fleet steps and elevated head, she perceived with astonishment her father standing by his horse ready to mount, and with him, in quiet



conversation, the Doctor, and he whom at this moment she felt a difficulty in encountering. She approached hesitatingly.

"Where have you been lingering Ilse?" cried the proprietor. "I must be off," and looking at the agitated countenance of his daughter, he added: "It is nothing of importance. A letter from the invalid forster calls me to his house; one of the Court people is come, and I can guess what they desire of me. I hope to be back at night."

He nodded to the Doctor. "We shall see each other again before your departure."

So saying, he trotted away, and Ilse was thankful in her heart for the incident which made it easier for her to speak with composure to the friends. She walked with them on the road along which her father had ridden, and endeavored to conceal her disquiet by talking on indifferent subjects. She spoke of the hunting castle in the wood, and of the solitude in which the gray-headed forster dwelt among the beech-trees of the forest. But the conversation did not flow; each of those noble hearts was powerfully touched. The Professor and Ilse avoided looking at each other, and the friend could not succeed, by jocose talk, in drawing the lovers down to the small things of life.

Ilse suddenly pointed with her hand to a narrow pass on one side, from which many dark heads were emerging.

"See! there are the Indians of Frau Rollmaus."

A number of wild figures came on with a quick step, one behind the other; in front a powerful man in a brown smock-frock and shabby hat, a stout stick in his hand; behind him some young men, then women with little children on their backs; all round and about the troop ran half-naked boys and girls. Most of the strangers were bare-headed, and without shoes. Their long black hair hung about their brown faces and their wild eyes, even from a distance, stared eagerly on the walking party.

"When the autumn comes, these people sometimes wander through our country; they are jugglers who are going to a fair; but for some years they have not ventured into the neighborhood of our estate."

The troop approached; there was a wild rush from the gang, and in a moment the friends were surrounded by ten or twelve dusky figures, who pressed on them with passionate gestures, loud cries and outstretched hands—men, women and children, in tumultuous confusion. The friends looked with astonishment on their piercing eyes and vehement movements, and on the children, who stamped with their feet, and clawed the strangers with their hands like mad creatures.

"Back, you wild creatures," cried Ilse, pushing herself through the band, and placing herself before the friends. "Back with you; who is the chief of the band?" she repeated with anger, and raised her arm commandingly.

(To be continued.)

# The Open Court

PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRESIDENT.

DR. PAUL CARUS, EDITOR.

THE OPEN COURT is devoted to the work of conciliating Religion with Science. The founder and editor have found this conciliation in Monism—to present and defend which is the main object of THE OPEN COURT.

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TERMS, \$3.00 PER YEAR. SINGLE COPIES, 10 CTS.

All communications should be addressed to

THE OPEN COURT,

P. O. DRAWER F.

CHICAGO, ILL.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

NO. 30. (VOL. II.—4.)

CHICAGO, MARCH 22, 1888.

{ Three Dollars per Year.  
{ Single Copies, 10 cts.

## KARL THEODOR BAYRHOFER AND HIS SYSTEM OF "NATURALISTIC MONISM."

BY EDMUND MONTGOMERY.

A few weeks ago, February 6th, there died, on his Wisconsin farm at the age of seventy-six, a man who was a leader of men in thought, word and deed. In his native country, in one of the most stormy phases of old-world struggle for religious and political liberty, he fearlessly led the van till the last glimpse of hope had vanished and the liberal cause lay prostrate at the mercy of the armies and minions of despotism. In the realm of thought as scholar and teacher he worked his upward way from the densest fogs of religious superstition, through the all too rarified atmosphere of Hegelian Intellectualism, to a profound and serene view of nature, in which material and mental phenomena are monistically and naturalistically conceived as adequate manifestations of absolute and eternal All-Being.

Karl Theodor Bayrhofer was in every respect a genuine representative of the idealistic striving, known as German "Storm and Stress." He was, all in all, an intensely animated embodiment of German Philosophy and German Humanism. At home his philosophic and humanistic hopes had all been wrecked for the time being. But when in 1852 he found safety from prosecution by landing on the hospitable soil of this free country, he very likely expected philosophical Republicanism to be here already in full swing. He, no doubt, met with much sympathetic consideration so far as his political views and aims were concerned. But where were those who would patiently listen to his philosophical persuasions and demonstrations? Yet his thought was to him the veritable life of his being. To him life, not consistently guided by philosophical reason, was no human life at all, but mere animal existence.

With such exalted views, despite all his fervid trust in an eventual rational reorganization of political and social life, it must have been a weary waiting and watching for him these many years to discern actual symptoms of his expected era of philosophical enlightenment and its unselfish humanistic rule. Still, in truth, much has lately been accomplished here in this direction also; if not politically and socially, then at least regarding the philosophical contemplation of the import of human existence. And these philosophical endeavors have followed mostly German lines of thought.

Even twenty years ago, who in this country and in England would have thought that "German Philosophy," then almost universally ridiculed as the vaguest of vagaries, would come to be taught as highest wisdom at our principal seats of learning—that our Christian professors of philosophy, driven to extremity by the relentless inroads of natural science, would find no better shield against "infidelity" than the airy fabric of self-sustained concepts conjured into fictitious existence by the juggling dialectics of Hegel? Yet so it is. Hegelianism has once more become a mighty staying power among thinkers in the Christian camp.

Germans, about the middle of the century, had themselves very generally turned away with disgust from the grandiloquent *a priori* speculations of their renowned philosophers. These wordy constructions had proved prolific of nothing but fantastic dreams which had deranged the head of many a promising youth. And, moreover, by force of their visionary character, they had been the chief cause of the non-success of the liberal political aspirations which had seemed so near fulfillment in the revolutionary movement of 1848. In those stormy days of revolt against misrule and oppression, the German parliament was filled with Hegelians—Hegelians of the right wing and Hegelians of the left wing, arguing with one another whether the constitution should or should not be theocratic, until the golden opportunity for action was lost.

During the following reactionary period natural science engrossed more and more thoroughly the attention of the thoughtful. Eminently successful through close adherence to the experimental method, its votaries lost completely sight of the "Philosophy of Nature," propounded a few years before by Schelling and Oken to an enthusiastic audience largely composed of students of medicine and natural science. Sober investigators of the sensible facts of nature, as this new generation of naturalists professed itself to be, it could discern nothing within the sphere of veritable existence but units of mass grouped and actuated by physical forces; or, better still, grouped and actuated merely by the transmission and dissipation of definite quantities of motion or energy.

But the satisfaction afforded by this ready mode of accounting for things was not destined to last. Nature did not altogether admit of being thus algebraically emptied of her indwelling wealth. She soon thrust her



old psycho-physical riddle in the way of her mechanical explorers. It was the physiology of the senses worked at with all the precision of a physical science which, even to the most mechanically inclined, unavoidably disclosed the essential dissimilitude obtaining between the nature of the physical stimuli affecting the senses and that of their stimulated mental or conscious effect. Undulations of air or ether were now scientifically recognized to be physical occurrences incommensurably unlike the sensations of sound or color experienced in consequence of their striking our ear or eye. And a little further consideration discloses the strange and perplexing fact that the air-waves and ether-undulations, so clearly apprehended as physical occurrences, are themselves, nevertheless, only mental representations in terms of purely individual sight-perception, of the hidden powers that awaken such determinate perceptions in us.

Thus, natural science, prying according to its own method into the secrets of organic life, found itself once more brought face to face with the great standing enigma of philosophy: how in reality is the microcosm, we find figured in our own individual perception, related to the macrocosm, subsisting independently of this mental realization of ours?

Scientists, despite their zeal to explain everything in keeping with mechanical principles, feel now compelled to acknowledge the existence and importance of the problem of cognition, which they had managed steadfastly to ignore for awhile. Consequently they have, in search of deeper truth, very generally joined the rush "back to Kant." And it is chiefly through this scientifically accredited indispensableness of a theory of cognition, that Kant has again become the polar-star, by which most philosophical ventures of the present time are guiding their course.

Sixty years ago, in the very heyday of German philosophical speculation, this same sober and close-reasoning Kant became also the guiding-star of a sixteen year old youth, the son of a printer in Kurhessen, who, one memorable day, happened to get hold of a copy of the "Critique of Pure Reason" in his father's little bookstore. This event determined his further course in life. From now on Karl Bayrhafer was determined to devote himself to philosophical research. In 1834 he took the degree of Doctor of Philosophy at the University of Marburg; qualified himself soon after for teaching there as "Privatdocent," and was in due course appointed Professor of Philosophy in the same university.

At that time Hegelianism was paramount in the philosophical world of Germany. The master himself had recently passed away. But ardent disciples were everywhere propagating his system. Unfortunately the state in various parts of the country had placed a serious obstacle in the way of a harmonious and consistent exposition of Panlogism, of which the necessary outcome

is evidently a pantheistic creed of some sort. Zealous ministers of public instruction were, namely, exacting from university professors adherence to Christian Doctrines. The puzzle then arose, how to reconcile free philosophical thought with a prescribed form of State-Religion. Hegel himself, consummately versed in conceptual world evolution, had found no difficulty whatever in making specifically religious dogmas, such as that of the "Trinity," emerge from his self-evolving machinery. And most of his disciples felt no compunction to follow or to outdo the master in subserviency to state-ordinances. But, amongst them, there were some, at least, who had the courage openly to draw the most daring conclusions involved in their philosophical premises. No wonder then, that, in consequence of such irreconcilable tendencies, the Hegelian host divided into "a right and a left wing;" for so this disruptive movement into two hostile camps was mildly designated. The right wing endeavored to press Hegelianism more or less thoroughly into the service of Christianity. The left wing broke altogether loose from Christianity, denying the personality of the creative power and the possibility of individual immortality; and freeing itself, at last, completely, by force of naturalistic considerations, from the belief that the world is made up of nothing but thought or reason.

The most widely known representatives of this intrepid band of revolutionary philosophers are Feuerbach, Strauss and Bauer. But Bayrhafer, who with them joined the left wing—though little known at present—is by far the most penetrative and consistent abstract thinker of this remarkable free-thought school, whose rallying cry was "Nature and Humanity," and whose mighty liberating influence has spread over all civilized lands.

The burden of this great free-thought movement was eighteenth century liberalism, deepened by the literature and science of the German "Aufklaerung," and above all by the Kantian philosophy. Bayrhafer himself says: "Our philosophy, together with its historical criticism of creeds and their records, must inevitably bring about the overthrow of the realm of religious phantasms, the dissolution of the old dualistic conceptions of matter and mind, and end in the triumph of the all-harmonizing, monistic world-conception."

No one will deny that this bold prediction, uttered with full confidence by our monistic philosopher, is now gaining very much the appearance of a truth in course of fulfillment. Have not Feuerbach's "Essence of Christianity," Strauss's "Life of Jesus," Bauer's biblical criticisms, together with the various attempts of the left-wing dissenters to establish a unitary and naturalistic foundation of being for both matter and mind, worked already a long way towards its realization? And though biblical criticism has been perhaps more imme-



diately effective than naturalistic monism in freeing the popular mind from its grossest superstitions; yet it has long been clear to the initiated that the decisive battle must range round the relation philosophically conceived to subsist between Mind, Matter and Universal Being. It will be well-spent time, then, to listen attentively to a trained thinker, whose life-work has been the elucidation of this dark problem.

Rightly to appreciate how deeply rooted the opinions of our old-world revolutionist, philosopher and humanitarian really are, we have to alight for a moment amidst the influences that have helped to shape them. For radically realistic as his thought may seem in itself, it grew nevertheless out of Schellings and Hegel's idealistic Identity-Philosophy, then in the ascendant in German universities. Himself a professor of philosophy, he stood all-awake in the great intellectual stir, whose echo in England and America had power to fill such men as Carlyle and Emerson with the life-long desire to ingraft its transcendental bent on the culture of their native soil. No wonder, then, that the world-conception, enunciated after many years of struggle for existence from his remote Wisconsin farm, will be found intimately related to the sundry speculative currents that swept the philosophical atmosphere of those palmy days of constructive thought.

Kant had seemingly proved that it is solely the combining activity of our intellect, which from incoherent and shapeless data of sense is building up the orderly world we actually know; and that of the veritable nature of things outside our own perception and thought we can know nothing. Still Kant's final and emphatic verdict was, that our combining and constructing intellect can work only on definite material *given* to our sensibility from outside.

But, the entire world we perceive and know being thus—according to Kant himself—constructed exclusively by our own intellectual activity, why should not this all-containing and all-sufficient product of thought be itself veritable and sole Being? Those surmised outside data of sense, spaceless, timeless, uncombined and unperceived, what can they be but an unimaginable dust of non-entities. And the world of things-in-themselves, invented to account for such fancied notes of pure sense-affection, must be likewise an idle fiction. There is, and need be, nothing in existence save intellectual activity, constituting our Ego and the entire content of its consciousness. Intellectual activity is therefore itself the creative power, identical with its creation, and hence sole and veritable Being.

Such, indeed, was the main conclusion arrived at by Fichte, through consistent development of Kant's assumption of a free intelligible Ego and its nature—constituting thought. And this outright assertion of the thorough identity of Thought and Being—a doctrine

established solely by means of ratiocinative introspection, working exclusively upon the ideal content of consciousness—became the leading principle of the so-called Identity-Philosophy, further elaborated by Schelling and Hegel.

Bayrhammer adhered to the last to Schelling's version of it; at least to his fundamental conception of Transcendental Realism, or "Real-Idealism," as it is generally called. Schelling, namely, amplified Fichte's view by maintaining that, in order that the self-thinking Ego may at all come to know, there must exist something to be known. Consequently, he postulated as ground of all existence, not an absolute Subject merely, but an absolute Subject-Object. The All, which Spinoza had contemplated as absolute Substance, he conceived as absolute World-Ego, in whose activity subject and object, spirit and nature, the ideal and the real are at every stage of manifestation identically interblended, in a similar way as we find them in our own individual perception and conception.

Bayrhammer's naturalistic and hylozoistic Monism is—as will be seen further on—grounded on this conception of the substantial identity of the ideal and the real in every phase of sense-apparent existence and evolution, by which the eternal activity of All-Being becomes manifest to us. The subjective and the objective, inner and outer existence, thought and being, mind and nature, are to him in essence identical. And for this never-shaken view of his he will presently give us very cogent reasons.

From Hegel's Panlogism, which has become so seductive again to university-men of the present generation, and to which Bayrhammer in his early career had completely given himself up, he freed himself chiefly by the aid of Herbart's incisive criticism of the concept of pure Being, which emptied hull of reality, is made by Hegel to serve as foundation of his entire world-comprising air-castle.\* To those whose thinking does not happen to be caught and held in the magic circle of philosophical consistency, it will seem more than puerile to find it seriously enunciated as a newly-discovered truth, that Being does not consist of pure intellectual activity; that sensible things—mountains, for instance—remain still in existence even when not perceived or thought of. Yet it is a fact that the insistence, on the part of Herbart, on this truth—so self-evident to common sense—had power to bring many a Hegelian back to his senses; *i. e.*, back from the bottomless abyss of abstract thought to the actual world of sensible experience.

Of all philosophers of the post-Kantian period, Herbart exerted the most wholesome sobering influence on

\* From 1835 to 1849, in his Hegelian period, and during his transition from Identity-Philosophy Pantheism to Naturalistic Monism, Bayrhammer published a number of works whose titles, dates and place of publication will be found cited in "Meyer's Konversations-Lexikon."



the wild, speculative mood of the conceptual world-constructors, and Bayrholder gratefully acknowledges his indebtedness to him in this and other respects.

Herbart, then, declined to adopt Fichte's fundamental idea that the world is altogether a creation of the productive imagination of the Ego. Nor did he adhere to Schelling's teaching, that the constitution and meaning of nature may be discovered by watching the objective side of the content of thought, as it is welling up into individual consciousness from the depths of Being. He, trusting to sense-conveyed experience, accepted Kant's doctrine of things-in-themselves; the doctrine, namely, that external powers are affecting our sensibility and compelling from outside the specific content of our definite percepts. But Herbart did not with Kant declare these external powers to be wholly unknowable. On the contrary, he very rationally concluded that the changing relations between the different elements of our percepts must have their cause in determinations appertaining to that which is indefeasibly given to us from outside, and the changing appearances of which may therefore be apprehended by our thought as specific manifestations of veritable reality.

Bayrholder's naturalistic bent inclined him to follow in his questionings of nature much more closely Herbart's method of *sensible* intuition, than Schelling's method of *intellectual* intuition. Yet his philosophy remained, as already stated, Identity-Philosophy to the end; for material phenomena and mental phenomena he both conceived as equally and primordially grounded in absolute Being; material *phenomena* or compelled percepts representing sundry results of the eternal interaction between the elements of such Being, as they appear consciously reflected within those specific parts of itself called animal brains; and mental phenomena, at large, being simply the entire range of such reflected interactions in the same organized medium. All this will sound, at present, very enigmatical to the uninitiated, but will be better understood when we come to develop our philosopher's ideas of the nature of matter and mind.

Another consideration was urged by Herbart in opposition to the constitution of Being by pure mental activity; a consideration which may now again prove opportune, if applied to themselves by those philosopher's of various schools, who are renewing the attempt to dissolve all Being into pure relativity; into the mental apprehension of nothing but conceptual relations in the transcendental camp; and into mere states of interactivity in the naturalistic camp.

Herbart reminded the philosophical world that all determinations of an existent, which reveal themselves only in connection with other existents, such as motion, distance, in fact all sensible positions and changes of things, can be merely phenomena of relation, not facts appertaining to the essence of absolute Being.

These anti-Hegelian hints of Herbart were never forgotten by our Wisconsin philosopher, and it will presently be seen how he made use of them in his dynamical construction of reality. For his profound interpretation of sense and thought-revealed nature constitutes a system of naturalistic Monism, in which the material world results from the play of dynamical powers; not from pure intellectual activity, nor from inert atoms knocked about by motion imparted to them from outside. And in this connection it is incumbent on us to remark, that it was also from Herbart that Bayrholder took up not only his dynamical, but also his monadistic view; the view, namely, that the phenomena of nature arise by force of powers intrinsically belonging to a multitude of discrete elements, constituting absolute Being; and not, as taught by the mechanical interpretation of nature, through mere changes of relation in time and space, imposed from outside upon atomic elements, that are themselves intrinsically passive and unchangeable.

Having now sufficiently, though really only very cursorily, analyzed the philosophical pabulum, from which the thinking of our true, fearless and enthusiastic philosopher drew its principal nourishment during the time of its growth, we will try in a following article to give a concise exposition of his own well-matured ideas.

#### MONISM AND RELIGION.—A CRITICISM.

BY D. THEOPHILUS, M. A.

THE OPEN COURT having been established with the main purpose in view of discussing the relationship of religion and science, and, if possible, of effecting a satisfactory reconciliation between them; and as various articles have already appeared on the constructive side of the question, and none, so far as I know, on the destructive or critical side, a few words framed in the latter mood, in the way of objections to some positions already advanced, may possibly not be altogether an unwelcome reading. An article conceived in the latter spirit, if it accomplished nothing else, might, at least, help to relieve the uniformity or monotony of the discussion.

And since reading Mr. Hegeler's article in No. 25 of this journal, welcoming opposition, I more confidently offer my contribution.

In various numbers of THE OPEN COURT, particularly Nos. 13, 15, 24 and 25, it has been laid down as an accepted scientific conclusion that there is no antagonism between science and religion; nay, that the latter is a necessary and inseparable adjunct of the former. To this proposition I am constrained to take exception. The result of a somewhat close study of this question during the last twenty years forces upon me a different conclusion.

Dr. Carus in his article on Religion and Science (No. 15, OPEN COURT) apparently would have us be-



lieve (by implication at least) that prior to the time of the scholastics of the Middle Ages religion and science were not antagonistic. The notorious fact, however, is that wherever and whenever, in the world's history, there arose a science distinctively formulated, it invariably and inevitably clashed with religion. Each has occupied a sphere of its own. And the advocates of each, up to the present century, with one or two exceptions, have been perfectly satisfied with the opposition, and, what is more, coveted no reconciliation.

This fact is nowhere more apparent than in the early history of the Christian religion. Throughout the writings of Paul the opposition is emphasized by such marked contrasts as, Christ and Belial; light and darkness; the spirit and the flesh; kingdom of God and kingdom of the world. To Paul science was simply foolishness and sin in the sight of God. And precisely the same it was to Tertullian, Jerome and Augustine and the majority if not all of the Christian Fathers. All their science was contained in the revealed word: all other teaching that did not harmonize with it was simply of the devil and therefore false.

Dr. Carus' statement, therefore, that the separation of science and religion originated with the scholastics of the Middle Ages, is at variance with historic facts. It would be much nearer the truth to state just the reverse, that with the scholastics originated the idea of reconciling the two. And indeed that is the simple fact.

Scholasticism was a Christian philosophy, called into being with the avowed object of conciliating dogma and thought, faith and reason, religion and science. And the way whereby it sought to realize its aim was by rationalizing the dogma, so as to harmonize it with reason and fact.

Scholasticism rested upon, at least, two presuppositions: first that the creed of the church was absolutely true, and second, that a union between reason and faith or religion and science was possible, nay necessary: for the simple reason that truth must be uniform: the same thing cannot be and not be at the same time.

If the conclusions of science conflicted with the doctrine of the church, it was the duty of philosophy to expand or contract it, so as to reduce it into concord with the scientific fact. If, however, finally harmony was not secured, this was a clear proof, not that the two factors were irreconcilable, but that the alleged scientific fact was false. All true science agreed or could be made to agree with the dogma.

Thus the reconciliation of reason and faith, brought about by scholasticism, was not real, but apparent: it was obtained by doing violence to the terms it sought to reconcile; by depriving one of them of its real and independent existence. Virtually, science was comprehended under, or merged in, theology. As soon as science began to assert its independence, and claim, at least,

equal authority with theology, the fictitious character of the alleged union manifested itself. And forthwith the breach between the two became marked and decisive. Each began to assume toward the other a defiant front, tempered only by a love of peace. Hence a compromise was acquiesced in—a truce agreed upon. And this virtual compact was expressed in the formula: True to science, but false to theology; or *vice versa*.

Having won a right to an equal authority with religion, and emboldened by that success, science was not long before it attempted another conquest. It now claimed for itself the sole authority over the entire realm of knowledge, and treated its antagonist as a mere usurper. This characteristically marks the epoch, the character and the attitude of modern science.

The separation between science and religion was not brought about intentionally by scholasticism, as Dr. Carus claimed, but was accomplished in spite of it: it was due to the rise of science and the fall of scholasticism.

What is especially worthy of note here in connection with this abortive attempt at reconciling religion and science is the fact that it is the exact prototype of all subsequent like attempts; and that of Dr. Carus among them.

All methods of harmony followed ever since, like their forerunner in the middle ages, rest upon a presupposition or presuppositions, as a basis; they assume, at least, that a reconciliation is possible and desirable, nay, according to Dr. Carus, likewise necessary. The only ground, however, for this assumption, so far as I am able to discover in the articles above referred to, is to be found in another assumption, the statement that "religion is an ultimate fact of human nature." But whose human nature? I would ask, and human nature at what stage of development? Human nature is a very elastic expression. It covers a vast amount of heterogeneous elements and capacities. There is an immense difference between the nature of a savage or semi-civilized, or even of a civilized man, and that of the highly developed man of culture. What suits or satisfies the nature of a child or that of a savage is unsuitable and unsatisfactory to a man who has reached a higher state of development. The doings and requirements, therefore, of the "human nature" of a savage, a child, or indeed of the ordinary civilized man are no criterion whereby to judge of the needs and activities of the "human nature" of a Strauss, a Kant, a Feuerbach, a Grote, a Bain or of a Mill. These men and thousands of others like them have outgrown the need of religion. There is no void in their human nature which religion can fill. Their nature demands different nutriment from that of the savage, the semi-civilized or even that of the ordinary man of civilization. The argument, therefore, based upon the above assumption must fall to the ground, as the assumption itself implies a fallacy: the fallacy lurking in the ambiguity of the expression, "human nature."



The method of procedure adopted by Scholasticism in effecting a reconciliation, consisted in suppressing one of the terms or in tampering with its meaning. Science had no real standing except within the domain of religion. Precisely the like tactics have been adopted by later harmonists, with a difference only in the term suppressed. It is now generally religion that has to undergo a limitation and has its meaning tampered with, while science is exalted to the former's position in the middle ages. The authority of science is supreme and absolute, that of poor religion is nill. She is simply the humble *ancilla* (maid servant). Whatever existence is permitted it, is only in name and not in fact. So the problem of reconciling science and religion becomes easy enough. In fact there is nothing to reconcile, for there is but one term left.

That, to my thinking, is just the issue that is presented to us in the columns of THE OPEN COURT. Dr. Carus defines religion as man's consciousness of his relation to the All (OPEN COURT, No. 24). But this implies nothing more than an intellectual act or process. And the result is a mere acquisition of knowledge. Where, then, is the difference between religion and science? The definition might be a correct definition of philosophy or metaphysics, but not of religion; certainly not of religion such as we have known in our own experience as well as the collected experience of the past, as expressed in tradition and literature. And this is the only idea the world is interested in, and the only idea it wants to see reconciled to science; or if a reconciliation is not feasible, to have it so understood.

In Dr. Carus' scheme this essential idea, the idea for which the word religion is the symbol, the idea which has been palpable before the world, and remained fixed in the speech and literature of civilized and semi-civilized nations for several thousands of years, under whatever name symbolized; this idea in Dr. Carus' harmony is ignored or rather utterly eradicated, and another is quietly substituted in its stead, to which he labels the old familiar symbolic epithet—religion; and then proceeds to show that this latter is not antagonistic to science. As a result he gives us a solution of a different problem from the one he had undertaken to solve.

Religion, doubtless, has ever rested on an intellectual basis—a belief or a knowledge, true or false. But the object of such a belief or knowledge has invariably been of a definite and uniform character. It has possessed attributes in which mankind have vital interest, and of which the simply vague term, "The All," is wholly destitute. This object has been, at least, an intelligence, supreme, yet analogous to the human, a personality other than the world, possessing a will and power to put it in execution in the control of human destiny.

In addition to this intellectual act or belief, there is also present in all religion another factor, namely, the

effect of this conviction in man's feelings and conduct, manifesting itself in an emotion, such as awe, fear, reverence, love, dependence, accompanied generally with acts or exercises calculated to give due expression to such feelings.

Whatever else the word religion or its equivalent in other languages may connote, the two factors just mentioned are necessarily and inseparably connected with it. And in confirmation of this I simply appeal to the unsophisticated beliefs and opinions of mankind of all nations, during the last three or four thousand years, as these are recorded in literature of those nations.

These two features, I repeat, are inseparably bound up with the idea of religion. And if you deprive the word of this its essential and unalterable content—content which it has borne for thousands of years, and by which it has been known to minds of all degrees of culture; to believers and skeptics, devotional men and worldlings; to the philosopher and the man of science in the same way as to the theologian and the untrained thinker; if you now take out of the word that content, you will inevitably and necessarily destroy the fact itself. You will utterly banish religion from the world, and there will be nothing behind except the bare symbol, or the symbol with a new signification; which is not new either, for it is a content borrowed from another word—philosophy or metaphysics.

The word religion is no more susceptible of having its meaning tampered with, without losing its essential nature, than are other words of cognate signification, such as loyalty, awe, reverence, faithfulness, trust, belief, fear, hope, virtue, obedience, etc.

The conception of growth or progress, except in the degree of the emotion, is also altogether alien to ideas connoted by these words. And the word religion partakes of exactly like fixedness; notwithstanding Max Müller's contention to the contrary.

Religion conveyed precisely the same notion to Moses, Isaiah, Paul and the Christian Fathers, as it does to-day to Leo XIII., the archbishop of Canterbury and De Witt Talmage. The meaning attached to it in the minds of Jewish rabbis, Egyptian priests, Indian theosophists and Mohammedan fanatics, was accepted without question by the irreligious, the skeptic and the scoffer, as well as by the philosopher and the scholar. Religion to Lucretius, Celsus and Lucian, was the same as it was to Cicero, St. Augustine and Marcus Aurelius. What it signified to Calvin and Luther, the same it did also to Voltaire and Paine. It is only within the present century, and especially the latter half of it, that diversity of opinions has been entertained as to its true character, and that chiefly among metaphysicians and minds imbued with liberal thought. And this in itself is a significant fact. It is sufficient to arouse distrust as regards the motive which impels the compromisers to examine anew the



ground of religion and seek for it some other foundation in human consciousness than the old one—some position which science cannot undermine. It is a similar motive that in the middle ages prompted the advocates of science to compromise with the theologians for the sake of peace. Now it is the religionist that desires to compromise. In each instance it is the weaker party that hoists up the flag of truce. But in resorting to a compromise the religionist is constrained to surrender all that really constituted religion—all save the name.

The truth is that a reconciliation of religion with the prevailing scientific conception of the world is impossible, for religion has been founded on Dualism; it postulates an anthropomorphic god as the first and indispensable condition of its existence. No other conception will be of any avail. No other conception of a God will prove capable of supporting a religion. No vague somethings or nothings will answer the purpose. The Unknowable, the Thing in Itself, the Infinite, the Unity in Difference, the All, the Great Being of Humanity, each and all fall short of the requisite potency to give meaning and life to religion. None of these are capable of constituting a God such as the religious instinct demands.

A God set up with either of these entities stands in just as much chance of becoming an object of religious zeal or aspiration as the law of gravitation or the fourth dimension does. People would be as likely to worship, fear, love or reverence "The All" or the Unknowable or even the Great Being of Humanity as they would a tom-cat or an Egyptian mummy. No conception, I repeat, except the anthropomorphic, affords a sufficient ground for religion. Banish dualism from your head and religion will necessarily vacate the heart.

#### SUPERSTITION IN RELIGION AND SCIENCE.

The criticism by D. Theophilus,\* published in the present number of *THE OPEN COURT*, was very welcome because it comes from an able pen. The article, as we learn from the accompanying letter, is written by a man who studied theology and is well versed in theological questions. He does not side with religion but denounces it as superstition. His criticism, I believe, is valuable, and it deserves publication and our full attention, as it states the opinions of a large number of free thinkers; and many of our readers, I do not doubt, will find therein a fair and scholarly expression of their views.

Before I enter into a discussion of the subject let me mention that years ago I cherished exactly the same opinion as Theophilus. As a child I had been a faithful believer in Christianity, the dogmas of which I had been taught to consider as absolute truths. When my faith in these dogmas was shaken, I was almost on the verge of despair. The purpose and aim, the content

and the value of my aspirations were lost. All was desolation and my life empty. In this period of my life I identified Christianity and superstition, faith and credulity, religion and dualism. It was not until I had, through many experiences, advanced on the thorny path of inquiry and thought, that I regained the equipoise to judge justly of religion and to learn that the errors through which I had passed were everywhere common experiences in the lives of individuals and in the development of nations. I found that there was some truth hidden in the old superstitions, and accordingly that a wrong interpretation of religion does not justify us in discarding religion altogether.

When I lived in Germany I once had the pleasure of being received by a Buddhist high priest, who was sent by the government of Japan to study European religions. He had read two of my publications, which perhaps might have been and indeed were denounced by orthodox minds as irreligious. He considered them worthy of his notice for the sake of religion.

My conversation with this venerable and learned man, who came from a country to which we send missionaries, gave me much food for thought. He was not hampered by any creed; his Buddhism does not prescribe any dogma to be believed in. He was well read in the philosophy of Plato and of Kant. At least he referred to their idealistic doctrines in a way which proved that he knew of what he was speaking. He said: "Our difficulty in Japan is to educate a clergy who can be the teachers and advisers of the people, who can assist them in their troubles, comfort them in afflictions and miseries, and elevate their minds when they are happy and prosperous."

There are moments in life when not only the uneducated but also, and perhaps even in a higher degree, the more educated classes need the spiritual support of a fatherly friend. Of such moments there may be mentioned as the most prominent, the entrance of a child into life, marriage and the last honors to the dead. The actions of every individual have a definite reference to the healthy life and growth of the community and of humanity in general. The individual should know it and must be conscious of it. Therefore those actions of ours in which this our relation to a greater whole is unusually marked and noticeable, must be sanctified so as to remind us of their importance. We need appropriate forms for these actions and cannot dispense with them. These forms, however, should harmonize with the civilization of to-day and be free from dogmatism and superstitious notions.

If a man like this Buddhist high priest comes to us to study the religious problem shall we tell him: Religion is simply superstition. Go home and abolish religion altogether. By doing so you Japanese will be far ahead of us.

\*For all I know the name may be a pseudonym.



The leading mistake of Theophilus is that he criticizes religion as he defines it, not as it is defined in THE OPEN COURT. He defines religion as a belief in a supernatural deity and declares that it is founded on dualism. But how can religion be identified with the belief in a supernatural deity, since Buddhism, whose adherents are the most numerous on earth, is an atheistic religion?

If scholasticism failed in its endeavors to reconcile religion and science this failure does not prove that the two factors are irreconcilable. It proves that the method of the schoolmen was wrong. They indeed never tried to reconcile religion and science, but the dogmatism of the church and the dogmatism of Aristotelean philosophy. Neither should the former be identified with religion nor the latter with science.

In a certain sense it is true that 'Religion conveyed precisely the same notion to Moses, Isaiah, Paul and the Christian Fathers as it does to-day to Leo. XIII.' And in a certain sense also science conveys precisely the same notion to Aristotle, Ptolemy and Kepler as it does to-day to our scientists. The religious spirit and the scientific spirit remain, or at least should remain, the same, although the meaning of words and their definitions change until after a longer or shorter process of evolution, when a certain stage of maturity is reached they perhaps become fixed for all times.

The objections made by Theophilus appear to me as if someone were criticizing modern psychology, who defined psychology as an inquiry into the properties and substance of the soul. Then the critic, being averse to dualism, declares that the soul does not exist independent of the body, that soul-substance and soul-properties are superstitious notions, *ergo*, all psychology is based on error and has no title to existence. The truth is that the old dualistic interpretation of the functions of the soul are erroneous; all the psychological terms and even the definition of psychology itself, as stated by the old school, are now proven to be fundamentally false. All this conceded, is any critic justified in saying that psychology is a superstition?

During the last few centuries all the sciences have been revolutionized by new discoveries, just as our civilization has been modified by the many inventions made in all branches of life and labor. It is but natural that religion also should be revolutionized and based upon other principles than heretofore. This will be accomplished whether we champion or oppose the new view of religion, for it is the outcome of an evolutionary process in the growth and development of mankind.

The fact is well-established and yet little appreciated that science has just as well its orthodoxy as religion. Science in former centuries was just as dualistic as religion. And the history of civilization is the slow process by which man frees himself from superstition. Super-

stition is not necessarily a religious error. By far the most numerous superstitions are scientific superstitions. Superstition is the assumption of an error as if it were an axiomatic truth; and one of the most important causes of superstition is the dualism of former centuries. Those who cherished their superstition as absolute truth assumed the name orthodox, viz., the men whose view is correct. They denounced the heterodox as revolutionists who destroyed science as well as religion.

Copernicus, Kepler, Galileo and other great scientists were to the scientists of their era heterodox, just as Luther was denounced as a heretic and infidel by the church. Socrates was executed because he was said to be irreligious, and Christ was crucified for blasphemy.

If to-day a scientist would try to establish a new—although correct—explanation of certain natural phenomena, which appeared to be contrary to the present views of his colleagues, it is certain that his theory would for a long time be rejected and ridiculed. La Marck and Darwin have experienced the truth of this fact. Only by great efforts did they and their followers overcome the old superstition of the orthodox pharisees of science.

The superstition of former ages, the erroneous dualism which boasted so much of its infallible orthodoxy, was not only an attribute of the religion of the middle ages but also of its philosophy and science. It is but a few decades since physiology got rid of the dualistic view of a life-principle, or vital power. Even to-day our chemists speak of organic and inorganic chemistry, as if two different kinds of elements existed, the living and the dead. This view and its whole terminology are but scientific superstitions.

It is not the place here to point out why the path to truth necessarily leads through errors. Nor can we here explain at length how the errors of old—far from being absolute errors—were the germs of truth. They contained golden grains of truth, and the faithful enquirer winnowed them until the grain was separated from the chaff. Thus Copernicus and Kepler were guided in their great discoveries by the old superstitious notions of the Pythagorean philosophy. They believed *a priori* in the harmony of the spheres.

Also another fact can only be hinted at: Humanity does not consist of single individuals but forms one great unity. The single individual is merely the representative of the ideas of his age, which are the results of a long process of evolution. This will easily explain why certain ages bear a certain uniform character.

There are, no doubt, exceptions. Some men are greatly in advance of their times and some lag behind. But such exceptions confute our argument as little as cases of atavism overthrow the theory of evolution.

I argued with many different persons upon the topics of religion and science, and found that apart from



a difference of definitions, fundamentally they held almost the same opinions. The atheist and the monotheist have different definitions of God. The former rejects, the latter accepts, the idea of God, but *de facto* both agree much more than they are themselves aware of. The Roman Catholic priest of to-day and Robert Ingersoll are more alike in their *philosophical* views than is generally supposed, but we must eliminate the differences of their terminology and translate the language of the one into that of the other. A free-thinker of to-day differs much more from a free-thinker of mediæval times than from an orthodox believer of to-day; and a Lutheran clergyman differs in the same degree from Luther himself. What Lutheran clergyman would throw his inksstand at the devil or order a misformed babe to be drowned, because it may perhaps be a changeling? What Calvinist of to-day would burn a man who had a peculiar idea of the Trinity of God. The shortcomings of religious men are not errors of religion; just as the *ignis vitæ* was not an error of science. Errors and superstitions are errors of men and of their times, and our own time has likewise its full share of them. The scientific and the religious spirit is constantly endeavoring to free humanity from its many errors.

Taking this ground, I fail to see why religion should be identified with the errors of the past and science credited with all the great ideals of the future. Why shall not religion just as well as science be freed from the shackles of superstition? Absolute truth never existed either in religion or in science. Scientific definitions and religious dogmas have changed from century to century, but the religious spirit and scientific spirit remained the same. The scientific spirit is characterized by a pure love of truth, and true religiosity means man's consciousness of being in unity with the whole Cosmos—whether it is called the All or God, Brahma or Nirvana or even Nought. The religious sentiment is a powerful factor in every human being. It prompts us to live in accordance with what we call ethics, and by it our ethical instincts must be explained. The professedly irreligious possess this religiosity sometimes stronger than those who profess a certain religion. Call it other than religion, if you please, but the rose would be a rose with any other name. In this sense Schiller said:

"Which religion I have? There is none of all you may mention That I embrace; and the cause? Truly, religion it is!"

The religious spirit and the scientific spirit are so much in harmony that one cannot exist without the other. All the prominent men of science were sincerely religious—they were not orthodox; how could they be so narrow-minded if they were to be the representatives of progress? They were intoxicated, as it were, with their zeal for truth. They felt that the heart-blood of human progress was throbbing in their veins. A greater power than themselves had taken possession of them.

They were conscious of working and suffering for a great cause, in comparison to which their individual loss and anxieties were but fleeting trifles. The same can be said of great artists. Such sentiment is the true religious spirit of which Goethe speaks:

*Wer Wissenschaft und Kunst besitzt,  
Der hat auch Religion.*

*Wer aber beide nicht besitzt,  
Der habe Religion.*

The man who science has and art,  
He also has religion.

But he who is devoid of both,  
He surely needs religion.

And this leads us to another point. Science is the privilege of the few, but religion may be had by the masses. Not everybody can be a scientist, but everybody can be and should be imbued with the true religious sentiment. Religion is not a deep philosophy, it does not take the profound learning of a scholar to recognize that the individual is but a part of a greater whole. Every child can know that; and every child should know it, not by being taught so at school, but by seeing its parents act accordingly.

A true scientist and a great artist conceive that all natural phenomena are but so many instances of the HAN KAI'EN. Nature is one and the same everywhere. Science and art are based upon this truth. Accordingly, every true scientific man, every great artist must *eo ipso* be possessed of the right religious spirit. However, those who cannot intellectually grasp this truth, must needs be religious or they will sink below the level of the savage and the brute.

What we want is religion for the masses; not orthodoxy to make them bow down and worship idols, but a religion that makes the individual feel himself the representative of a higher power, of his community, of his nation, of humanity. A nation in which the masses are religious in this sense will be truly republican, for every citizen will be a representative of the sovereignty of the nation—of the sovereignty with all its prerogatives as well as its obligations.

#### PARABLES.\*

BY HENRY BYRON.

##### I.

#### THE INFORMER.

In our village there lived a bad man, an informer. As we Arabians are governed by strangers† and as we hold, not always with justice, incidents occur in our communities which, we think, we have good reason to conceal from the government. To discover such secrets and betray them for pay to the authorities was the work of the informer. If he succeeded, (which was but too often the case,) imprisonments, fines and still heavier

\* Translated from the Arabian.

† The Turks. (The Translator.)



punishments followed, and grief and sorrow reigned all through the community.

But the informer was overtaken by a disease which proved fatal. Shortly, however, before he died he sent for the principal citizens and spoke to them thus: "I have sinned against God and against you all my life long and you now see me repentant and contrite. The Allmerciful will forgive me, poor, repentant sinner—for His grace is infinite. But I fear I have transgressed too much to expect forgiveness from men. Grant me, however, I pray you, one request! When you carry me to my last resting-place lay a stone on my bier. This stone will be the emblem of the heavy load with which remorse, in the hour of death, burdens my heart. Perhaps some one who has sighed under the burden of remorse himself will take pity on him who lies stretched under the stone and will not curse his memory."

The principal citizens promised the dying man to fulfill his last wish and on the following day a bier, covered with a pall on which lay a heavy stone, was slowly carried through the streets. As is customary in such cases whenever a funeral passed, everyone left his occupation instantly, closed his shop and house-door and followed the procession. Again, as is customary, solemn stillness and silent mourning reigned everywhere. Had not the man now lying in his coffin done much injury to almost all who followed him to his grave? Where was the hate, the contempt for the informer, the terrible scourge of the community? There lay the stone on the pall and not one had an evil word, an evil thought for the man lying underneath.

But when the procession approached the burial-ground a wild cry: "Profanation of the dead!" rang through the air and in an instant they were surrounded by fierce Turkish mercenaries. "They want to revenge themselves on the dead!" shouted the hirelings; "on our friend who used to reveal their tricks to us! The dogs!" and they carried off the principal citizens to prison.

Again a sea of troubles rushed on the poor village.

The sinner had repented; he was dead; his sins were forgiven by God and men; but the consequences of sin remained.

#### WHAT DO TH REMAIN?\*

A great light glowing into life,  
A great warmth conquering in the breast,  
A great joy drowning care and strife,  
A great pang shading into rest.

And what is this that doth remain,  
Large, sweet, and luminous and sure?  
A joy by joy begot through pain,—  
Through pain immortal made, and pure.

\* Selected from *Poems by David Atwood Wasson*. Boston: Lee & Shepard; 1888.

## CORRESPONDENCE.

### AN INQUIRY CONCERNING IMMORTALITY.

To the Editor:

ITHACA, N. Y.

Sir, at the close of an editorial in *OPEN COURT*, No. 26, on "The Life and Growth of Ideas," occur these words: "When we are gone, the ideas remain. We die, but our better self, our ideas, can be immortal."

I think it is the teaching—now generally accepted—of the wise ones, that this globe which we inhabit is constantly, though slowly, losing its heat and moisture; and that there is coming a time, measurable by years, when from this cause all life upon its surface must cease, and the earth become as tenantless as it was at its beginning. Now, if this opinion of the wise is well founded, how can our *ideas be immortal*, or have any but a comparatively brief existence? Very truly,  
S. BREWER.

[The cell, which constitutes an almost infinitely small part of our body, dies away; but biology teaches that it lives in its filial cells. It has not lived in vain. For instance, the liver cell (as Professor Hering informs us in his essay, Nos. 22 and 23 of *THE OPEN COURT*) has acquired from its ancestors, from liver cells, the specific energies of their function, and transmits these energies to its descendants. If the cell dies, its structure, as it is produced by and has been adapted for a special function, is preserved. And this structure, this special form, is the cell and not the constantly changing material elements which constitute it in a certain moment. Granting this, you may say: That is no immortality, for the body of which the cell is a part will die, and thus after all the cell will have only "a comparatively brief existence." Certainly this immortality is not so much an absolute negation of mortality as a positive continuance after death.

What is true of the cell is true of man. The individual dies, but he persists in his children, he lives in his works and will continue to exist in humanity.

You accept this, but you declare that this world will also pass away. However, you should bear in mind that our world may exist for many millions of years and we may be sure that the human race has not as yet attained to full maturity. The immeasurable ages before us appear almost as an eternity. And to ponder on the persistence of life and its forms after the destruction of this world, seems to me the same as if a child worried about the fate of his grandchildren. But although we cannot form any definite idea concerning the final fate of our planet, we may be sure that the earth has a similar immortality, as has the cell in the individual, and the individual in the race.

There is no death in the old sense of the word, as there is no birth in the sense of a creative beginning. Both are transitions, both are changes of form. If there is death, we are constantly dying and constantly new-born, for, then, death is life. Editor.]

### NO INDIVIDUAL INCOME TAX.

To the Editor:

NEW YORK, March 10, 1888.

Under the caption of "National Taxation," Anti-monopolist has made a clear demonstration of the injustice of tariff taxes, but whatever merit his negative position has is marred by his attempt to construct a tax in place of the one displaced.

Why did he spoil his article by any such proposition as "individual income tax"?

He disposes of the justness of this tax in a few lines; as if it was self-evident:

"A man with a larger net income claims and enjoys the protection of the government for it to a larger extent than a man with a smaller net income."

This was all—or all at least that I could discern—advanced in justification of the tax.



His supposition is that the national government is a watchdog for property, and yet he says further on:

"There are those who say that a national income-tax would cause a good deal of perjury in this country.

"Yet it is the American tax that, if permanently established, would soon render the American people 'truthful' as to its payment. The truthfulness of a free nation can be affected only by erroneous legislation, in favor of classes of the people, but never by a just, sound, and uniform tax for the support of a government of the people, by the people and for the people, as our national government, and also every American state and municipal government, happily is this."

If this tax is to make people honest it would necessarily follow that property needed no further protection and consequently no tax.

We are compelled to suppose that the people will pay the tax, for if they don't want to, they can easily evade it, and only honest people would pay it, thereby encouraging dishonesty.

But, Anti monopolist contends, they will pay, because they recognize the fairness of the tax; why, then, do you advocate the swearing of citizens, and if they will not then submit a true report, punish them even unto a deprivation of liberty?

This sounds much as if he even doubted the honesty of the payees of the tax.

Again, if the tax is levied because of the protection the government extends over property, and the greater the property the larger the tax, it follows that all who possess sufficient property to bear a tax shall, regardless of everything else, have a voice in saying how and in what manner the property is to be protected, and disfranchise all who pay no tax, since they have no property to protect. Citizenship would then depend upon a property qualification.

Anyway the proposition is void since the state government is invested with the complete police regulation.

It is true that persons shall pay taxes to the extent of the privileges the government affords them—merely voting is not a privilege, since it presupposes something to choose. It is simply a means to an end.

The privilege a person enjoys in this or any other country is the privilege to hold exclusive possession to some portion of the land. Since all have an equal right, none can appropriate to themselves the choicest portions unless they render back to the community an equivalent for the superior advantages they hold, which shall be expended for the general good.

My desire is to be an anti-monopolist; therefore I am compelled to be brief and not press too much matter into this reply; otherwise I would explain the advantages of this tax in detail.

BENJ. DOBLIN.

## BOOK REVIEWS.

PATRICK HENRY. American Statesmen Series. By Moses Coit Tyler. Boston: Houghton, Mifflin & Co.

This series of compact useful biographies has long since established itself in popular approval, and but little more is needed by the reviewer than to call attention to the appearance of a new number in a collection of works of equally high order and even execution throughout. Patrick Henry, the fervid orator and sound statesman, is one of the most picturesque characters in American history; and with a writer of such qualifications and pleasing style as Prof. Tyler to present us with fresh knowledge of the subject, the reading of this book is sure to be as entertaining as profitable.

Prof. Tyler embodies considerable new material in his work, as there was opportunity to do, inasmuch as the biography of William Wirt, written as far back as 1877, is the only work deserving to be called a memoir of Patrick Henry that we possess.

In the second chapter the author deals with what he calls "the Jeffersonian tradition of Patrick Henry's illiteracy," which he considers "far too highly tinted." Without attempting to prove that the brilliant orator was a "bookish person," he shows very conclusively that he was fairly well grounded, according to the standard of the period in which he lived, in the fundamentals of education, including considerable knowledge of the classics. In religious matters Henry did not share the "fashionable skepticism" of the times, as derived from contact with the free-thinking nation of France, and more directly introduced into this country in the teachings of Jefferson and Paine. He wrote a treatise in refutation of Paine's "Age of Reason," which, however, he afterwards destroyed, being distrustful of the literary merit of the work. The life of Patrick Henry covered the most eventful period of our early history, and in addition to the new knowledge we gain of the main subject, Prof. Tyler has given us a clear and intelligent review of the general condition and outlook of affairs during the early formative years when our national life was beginning to shape itself.

C. F. W.

POEMS. By Edward Rowland Sill. Boston: Houghton, Mifflin & Co.

Mr. Sill has long been known among lovers of good verse as one of the best minor poets of the day. He is doubtless best known to the general public by the short poem, "The Fool's Prayer;" but though we share the universal admiration for this specimen of the poet's work and feel the real power and inspiration it contains, we do not place it above other short poems, such as "Opportunity," "Dare You" and "Strange."

The opening poem is entitled "The Venus of Milo," and is a dissertation in musical rhyme on celestial and earthly love, represented in the deities of contrasted beauty and power over men, the Medicean and the Mellan Venus.

"Larger than mortal woman I see thee stand,"

he apostrophizes the last-named goddess,

"Placid thy beams as that still line at dawn  
Where the dim hills along the sky are drawn."

Though this type of purer love abides on earth, it has not replaced that of the other Aphrodite, daughter of the sea-foam:

"From our low world no gods have taken wing,  
Even now upon our hills the twain are wandering,  
The Medicean's shy and servile grace,  
And the immortal beauty of thy face."

But he has learned by bitter experience the false and fleeting happiness "that lesser Aphrodite" brings, and turns to pay the full homage of a tried and believing soul to her nobler sister. Here he will remain

"Till the dim earth is luminous with light  
Of the white dawn from some far-hidden shore,  
That shines upon thy forehead evermore."

This little collection of poems will be welcomed not only to old readers who have long known and prized the author's work, but to all lovers of high, ennobling verse.

Mr. Sill never chooses an ignoble theme, nor does he write in the stiffly serious vein of the didactic poet. He is a reflective, hopeful observer of men and things, with the power of giving musical expression to his thoughts that lingers long and lovingly in the reader's ear.

C. F. W.

A PHYLLIS OF THE SIERRAS. By Bret Harte. Boston: The Same.

This is a story written in the author's usual vein and dealing with the same materials of Western life and scenery which distinguish all his writings and make up his native literary health. "A Phyllis of the Sierras" is published in uniform size with "Maruja" and "Snowbound at Eagles," and will receive immediate welcome and perusal from Mr. Harte's numerous readers. The volume contains two stories, the second being entitled "A Drift from Redwood Camp."

C. F. W.



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER IX.—*Concluded.*

The noise was silenced, and a brown gypsy woman, not smaller than Ilse, with shining hair arranged in braids and a colored handkerchief on her head, came out from the band, and stretched her hands toward Ilse.

"My children beg," she said; "they hunger and thirst."

It was a large face with sharp features, in which traces of former beauty were visible. With head bent forward, she stood before the young lady, and her sparkling eyes passed peeringly from one countenance to the other.

"We have money only for the men who work for us," answered Ilse, coldly. "For strangers who are thirsty, there is our spring; and to those who are hungry we give bread. You will get nothing more at our house."

Again dozens of arms were raised and again the wild crowd pressed nearer. The gypsy woman drove them back by a call in a foreign tongue.

"We wish to work, Fräulein," she said, in fluent German, with a foreign accent; "the men mend old utensils, and we drive away rats and mice from the walls; and if you have a sick horse, we will cure it speedily."

Ilse shook her head negatively. "We do not need your help; where is your pass?"

"We have none," said the woman; "we came from foreign parts," and she pointed to where the sun rises.

"And where will you rest to-night?" asked Ilse.

"We do not know; the sun is going down and my people are weary and barefooted," replied the gypsy woman.

"You must not rest near the farm nor near the village houses. The bread you will receive at the gate of the farm-yard; you may send some one there to fetch it. If you light a fire in one of our fields, take care not to go too near the sheaves; we shall look after you. Let none of you stroll about the property or into the village to tell fortunes to people, for we do not permit it."

"We do not tell fortunes," answered the woman, touching a small black cross which she wore round her neck. "None here below know the future, nor do we."

Ilse bent her head reverently.

"Well said," said she. "According to the meaning which seems conveyed in your words, you do not remind me in vain of the communion which exists between us. Come to the gate yourself, mother, and expect me there; if you need anything for your little ones, I will endeavor to help you."

"We have a sick child, my pretty young lady, and the boys are in want of clothes," begged the gypsy

woman. "I will come, and my people shall do as you wish."

She gave a sign, and the wild troop tramped obediently along the side road that led to the village. The friends looked with curiosity after the band.

"That such a scene should be possible in this country I could never have believed," cried the Doctor.

"They were formerly quite a plague to us," replied Ilse, with indifference; now they are scarce. My father keeps strict order, and that they know right well. But we must go back to the farm-yard, for there can be no harm in caution with these thievish people."

She hastened back to the farm-yard. The Doctor lamented heartily that his journey hindered him from obtaining information from the strangers concerning the secrets of their language.

Ilse called the Inspector, and the intelligence that there were gypsies in the neighborhood flew like wild fire over the farm. The stables were guarded, the poultry and families of fatted pigs were given in charge to stout maids, and the shepherds and the ploughmen received orders to keep watch at night. Ilse called the children and gave them their supper, and found it difficult to control their excitement. The youngest were given over to mademoiselle, under strong protest and many tears, to the secure guardianship of their beds. Then Ilse collected old gowns and linen, gave a maid the charge of two loaves, and prepared to go to the gate of the farm-yard, where the gypsy woman would await her. The Doctor, in his joy about the strangers, had cast off all anxiety about his friend.

"Allow us to witness the interview with the sibyl," he begged.

They found the gypsy woman sitting in the dusk before the gate. Near her was a half-grown maiden, with brilliant eyes and long tresses, but scanty dress. The woman rose and received with a distinguished air the bounty which Ilse handed to her.

"Blessings on you, young lady," she exclaimed, and all the happiness that you now wish shall be your portion. You have a face that promises good fortune. Blessings on your golden hair and your blue eyes. I thank you," she concluded, bowing her head. "Will not the gentlemen also give my little maiden a keepsake?" The wild beauty held out her hand. "Her face is burnt by the sun; be kind to the poor dark girl," begged the old one, looking furtively round.

The Professor shook his head negatively. The Doctor got out his purse and placed a piece of gold in the hand of the old woman.

"Have you given up prophesying?" he asked, laughing.

"It brings misfortune to those who prophesy and those who ask," replied the gypsy woman. "Let the gentleman be on his guard against all that barks or



scratches, for mischief will come to him from dogs and cats."

Ilse and the Professor laughed; and meanwhile the eyes of the gypsy woman peered restlessly into the bushes.

"We cannot tell fortunes," she continued. "We have no power over the future, and we make mistakes, like others. Yet we see much, my beautiful young lady; and though you do not desire it, I will tell you something. The gentleman near you seeks a treasure, and he will find it, but he must take care not to lose it; and you, proud lady, will be dear to a man who wears a crown, and you will have the choice of becoming a sovereign; the choice and the torment," she added in a lower tone, and her eyes again wandered unquietly about.

"Away with you," cried Ilse, indignantly; "such gossip does not agree with your words."

"We know nothing," murmured the gypsy woman humbly, grasping the talisman on her neck. "We have only our thoughts, and our thoughts are idle or true, according to a more powerful will. Farewell, my pretty lady," she cried out with emphasis and strode with her companion into the darkness.

"How proudly she goes away," exclaimed the Doctor. "I have much respect for the clever woman; she would not tell fortunes, but she could not help recommending herself by a bit of secret knowledge."

"She has long ago learnt all about us from the laborers," replied Ilse, laughing.

"Where have they pitched their tents?" asked the Doctor, with curiosity.

"Probably beyond the village," answered Ilse. "You may see their fires in the valley. These strangers do not like one to come near their camp and see what they have for supper."

They descended slowly into the valley and remained standing on the border of the brook, not far from the garden. All around them lay the darkness of the evening on bush and meadow. The old house stood out on the rock, gloomy under the twilight gray of the heavens. At their feet the water murmured and the leaves of the trees were agitated by the night wind. Silently did the three look upon the vanishing forms of the landscape; the valley alongside of the village lay invisible in the deep shadows of the night; not one lighted window was to be seen.

"They have disappeared silently like the bats, which are even now flying through the air," said the Doctor.

But the others did not answer; they were no longer thinking of the gypsies.

Then through the still evening they heard a low moan. Ilse started and listened. Again the same weak tone.

"The children!" cried Ilse, in dismay, and rushed toward the hedge which divided the meadow from the

orchard. Much alarmed she shook the closed gate, then broke through the hedge and sprang like a lioness past the espaliers. The friends hastened after her, but could not overtake her. A bright light shone among the trees before her and something moved as she flew on. Two men rose from the ground; one encountered her, but Ilse threw back the arm which was raised to strike her, so that the man tottered and fell back over the weeping children who lay on the grass. Felix, who was behind Ilse, sprang forward and seized the man, while the Doctor the next moment struggled with another, who glided like an eel from under his hands and disappeared in the darkness. Meanwhile the first robber struck at the arm of the Professor with his knife, wrenched himself away from the hand which held him, and in the next moment broke through the hedge. One heard the crackling of the branches, and then all was quiet again.

"They live!" cried Ilse, kneeling on the ground, with panting breath, and embracing the little ones, who now uttered piteous cries. It was Riekchen, in her night-dress, and Franz, also nearly stripped. The children had escaped from the eyes of mademoiselle and the protection of the bedroom and slipped into the garden, in order to see the fire of the gypsies, of which they had heard their sister speak. They had fallen into the hands of some of the fellows belonging to the band, who were looking out for something to steal, and had been deprived of their clothes.

Ilse took the screaming children in her arms, and in vain did the friends try to relieve her of the burden. Silently she hastened with them into the house, rushed into the room, and, still holding them fast, knelt down by them before the sofa, and the friends heard her suppressed sobs. But it was only for a few moments that she lost her self-control. She rose, and looked at the servants, who thronged terrified into the room.

"No harm has happened to the children," she exclaimed. "Go where you have to keep watch and send one of the Inspectors to me."

The Inspector stepped forward.

"This has been a robbery on our land," said Ilse, "and those who perpetrated it should be given up to the law. I beg of you to have them seized in their camp."

"Their fire is in the ravine behind the village," replied the Inspector; "one may see the flame and smoke from the upper story. But, Fräulein—I say it unwillingly—would it not be more prudent to let the rogues escape? A large portion of the harvest still lies in sheaves; they may set it on fire in the night, out of revenge, or perhaps venture still worse, in order to free their people."

"No," exclaimed Ilse; "do not hesitate—do not delay. Whether the vagabonds injure us or not will be decided by a higher will; we must do our duty. The



crime demands punishment, and the master of this property is in the position of guardian of the law."

"Let us be quick," said the Professor; "we will accompany you."

"Take your strongest men from the farm-yard," said Ilse; "Hans and I will watch in the house." She burst open the study door and pointed gloomily to her father's chest of arms. "Take from thence whatever our people require for defence."

"Now I am satisfied," replied the Inspector, after consideration; "the farm bailiff shall remain here and we others will seek the band at the fire."

He hastened out. The Doctor seized a knobbed stick that was in a corner of the room. "That will suffice," he said, laughing, to his friend. "I consider myself bound to show some forbearance toward these thievish associates of my studies, who have not quite forgotten their Indian language." As he was on the point of leaving the room he stopped: "But you must remain behind, for you are bleeding."

Some drops of blood fell from the sleeve of the Professor.

The countenance of the maiden became white as the door against which she leant. "For our sake," she murmured faintly. Suddenly she hastened up to the Professor and bent down to kiss his hand. Felix restrained her.

"It is not worth speaking of, *Fräulein*," he exclaimed. "I can move my arm."

The Doctor compelled him to take off his coat and Ilse flew for a bandage.

Fritz examined the wound with the composure of an old student. "It is a slight prick in the muscles in the under part of the arm," he said, comforting Ilse; "a little sticking-plaster will be sufficient."

The Professor put on his coat again and seized his hat. "Let us start," he said.

"Oh, no; remain with us," begged Ilse, hastening after him.

The Professor looked at her anxious countenance, shook her heartily by the hand and left the room with his friend.

The hasty tread of the men had died away. Ilse went alone through all the rooms in the house; doors and windows were closed; Hans watched at the door opening into the court-yard, his father's sword in his hand; and the housemaids overlooked the court-yard and garden from the upper floor. Ilse entered the nursery, where the two little ones, surrounded by mademoiselle and their brothers and sisters, were sitting in their beds and struggling between their last tears and their sleep. Ilse kissed the tired little ones, laid them down on their pillows, then she hastened out into the yard and listened, now in the direction in which the band lay, now on the other side, where the clatter of horses' hoofs might

announce the arrival of her father. All was quiet. The maids from above called to her that the fire of the gypsies was extinguished, and she again hastened up and down, listening anxiously and looking up to the starry heaven.

What a day! A few hours before raised above the cares of earth, and now by a hostile band dragged back into terror and anxiety! Was this to be a foreboding of her future life? Were the golden doors only opened to be closed again discordantly and a poor soul to be thrown back upon hopeless aspirations? The deceiver had prophesied of one who might wear a crown. Yes, in the realm in which he ruled as king there was a blessed serenity and happy peace. Ah, if it might be permitted to compare the joys of earth with those of heaven, such learning and power of thought gave a foretaste of eternal glory. For thus did the spirits of those who had here been good and wise soar, surrounded by light, in pure clearness of vision, and speak smiling and happy to one another of all that had been upon earth; the most secret things would be revealed to them, and all that was most deeply veiled become apparent, and they would know that all the pains and sorrows of earth proceeded from eternal goodness and wisdom. And he who here trod this earth, a serene heaven in his heart, he was wounded in the arm by a wandering vagabond for her sake; and from love for her he had again gone out into the fearful night, and she was troubled with endless anguish on his account. "Protect him, all-merciful God," she prayed, "and help me out of this darkness; give me strength, and enlighten my mind that I may become worthy of the man who beholds Thy countenance in past times, and among people that have passed away."

At last she heard the quick trot, and then the snorting of an impatient horse at the closed door. "Father!" she cried out, hastily drawing back the bolt, and flying into his arms, as he dismounted. The proprietor was much perplexed as he listened to her rapid report. He threw his horse's bridle to his son, and hastened to the nursery to embrace his little ones, who at the sight of their father remembered their misfortunes, and began to weep and lament.

As the proprietor entered the farmyard, the farming people drew near the house, and the inspector stated "that no one was to be seen near the fire or in the neighborhood. There was no trace near the fire of their having encamped there—it had been lighted to mislead; theft had been their only object here; the greater part of the band had left early in the evening. They are lying concealed somewhere in the woods, and when the sun rises they will be far beyond the frontier. I know the rascals of old."

"He is right," said the proprietor, to the friends, "and I think we have nothing more to fear; yet we



must be very watchful to-night. But a poor father thanks you," he continued, with emotion; "the last day you have passed with us, Doctor, has been unpleasantly eventful, which is not usual with us."

"I undoubtedly depart in anxiety about what I leave behind here," replied the Doctor, half jesting, half serious. "Just fancy some of the lost children of Asia sneaking about these walls!"

"I hope we are rid of the rascals," continued the proprietor, turning to his daughter; "but you may count upon a different visit soon; our sovereign will be here a few weeks hence. I have been called away only to hear gossip about this visit, and to learn that it is not yet decided where his Serene Highness will breakfast before the hunt. I know what that means; the same thing happened fifteen years ago. There is no help for it; he cannot remain at the Dragon at Rossau; but this visit will not cause us any very serious inconvenience. Let us now wish each other good night and sleep in peace."

Both friends entered their bed-room thoughtfully. The Professor stood at the window, and listened to the tread of the watchmen, who paced around the yard, within and without, to the chattering of the crickets, and to the broken sounds which reached the ear from the slumbering fields. He heard a noise near him, and looked into the countenance of his faithful friend, who in his excitement had clasped his hands.

"She is religious," said Fritz, doubtfully.

"Are we not so also?" answered the Professor, drawing himself up to his full height.

"She is as far removed from the tenor of your mind as the holy Elizabeth."

"She has good, sound sense," replied the Professor.

"She is firm and self-confident, in her own circle, but she will never be at ease in your world."

"She has aptness here—she will have it everywhere."

"You blind yourself," cried Fritz, in despair; "will you disturb the peace of your life by a discord, the end of which you cannot foresee? Will you demand of her the great change which she must undergo from being a thorough house-keeper to becoming the confidant of your profound investigations? Will you deprive her of the secure self-dependence of an active life and bring into her future, struggle, uncertainty, and doubt? If you will not think of your own peace, it is your duty to show consideration for her life."

The Professor leant his hot head against the window. At last he began:

"But we are the servants and proclaimers of truth; and while we practice this duty towards everyone who will hear us, is it not right and a duty to do it where we love?"

"Do not deceive yourself," answered Fritz. "You, a man of refined feeling, who so willingly perceive in

every life what befits it—you would be the last to disturb the harmony of her being, if you did not desire to possess her. What impels you is not a feeling of duty, but passion."

"What I dare not demand of strangers, I am entitled to expect in the woman with whom I unite myself for life. And must not every woman that comes to share our life experience a similar change? How high do you place the knowledge of the women in the city who come into our circle?"

"What they know is, as a rule, more uncertain than is good for them or us," replied Fritz; "but from their youth they are accustomed to view the learning that interests men with sympathy. The best results of intellectual work are so easily accessible to them that everywhere they find common ground on which they can meet. But here, however charming and admirable this life may appear to our eyes, it is attractive just because it is so strange and different from ours."

"You exaggerate, and are not correct," cried the Professor. "I have felt deeply in these days that we have passed here, what we easily forget over our books, how great are the rights that a noble passion has over our life. Who can tell what makes two human beings love each other so much that they cannot part? It is not only pleasure in the existence of the other, nor the necessity of making one's own being complete, nor feeling and fancy alone, which joins the object of our love—although heretofore a stranger—so intimately to us. Is it necessary that the wife should only be the finer reed, which always sounds the same notes that the husband plays, only an octave higher? Speech is incapable of expressing the joy and exultation that I feel when near her; and I can only tell you, my friend, that it is something good and great and it demands its place in my life. What you now express are only the doubts of cold reason, which is adverse to all that is to be, and continues to raise its pretensions until it is subdued by accomplished realities."

"It is not alone the reason," replied Fritz, offended. "I do not deserve that you should so misconstrue what I have said. If it was presumptuous in me to speak to you concerning feelings which you now consider sacred, I must say in excuse that I only assume the right which your friendship has hitherto granted me. I must do my duty to you before I leave you here. If I cannot convince you, try to forget this conversation; I will never touch upon this theme again."

He left the Professor standing at the window, and went to his bed. This time he took his boots off, went to the bed, and turned his face to the wall. After a short time he felt his hand seized, the Professor was sitting by his bed clasping his friend's hand without saying a word. At last Fritz withdrew his hand with a hearty pressure and again turned to the wall.



He rose in the early dawn, gently approached the slumbering Professor, and then quietly left the room. The proprietor awaited him in the sitting-room; the carriage came; there was a short friendly parting, and Fritz drove away, leaving his friend alone among the crickets of the field and the ears of corn, whose heavy heads rose and fell like the waves of the sea under the morning breeze, the same this year as they have done thousands and thousands of years before.

The doctor looked back on the rock on which stood the old house, on the terraces beneath, with the churchyard and wooden church, and on the forest which surrounded the foot of the hill; and all the past and the present of this dangerous place rose distinctly before him. The ancient character of the Saxon times had altered little here; and he looked on the rock and the beautiful Ilse of Bielstein, as she would have been in the days of yore. Then the rock would be consecrated to a heathen god, even at that time there would have been a tower standing on it, and Ilse would have dwelt there, with her golden hair, in a white linen dress with a garment of other skin over it. Then she would have been priestess and prophetess to a wild Saxon race. Where the church stood would have been the sacrificial altar, from which the blood of prisoners of war would have trickled down into the valley.

Again, later, a Christian Saxon chief would have built his log house there, and again the same Ilse would have sat between the wooden pillars in the raised apartment of the women, using her spindle, or pouring black mead into the goblets of the men.

Again, a century later it would have been a brick house, with stone mullions to the windows, and a watch-tower erected on the rock, which had become a nest for predatory barons, and the Ilse of Bielstein again would have dwelt there, in a velvet hood which her father had robbed from a merchant on the king's highway; and when the house was assaulted by enemies, Ilse would have stood among the men on the wall and have drawn the large cross-bow, like a knight's squire.

Again, many hundred years later, she would have been sitting in the hunting castle of a prince, with her father, an old warrior of the Swedish time; then she would have become pious, and, like a city dame, have cooked jams and preserves, and gone down to the pastor to the conventicle; she would not have worn flowers, and would have sought to know what husband heaven destined for her by placing her finger at hazard on a passage in the Bible.

And now his friend had met this same Saxon child, tall and strong in body and soul, but still a child of the middle ages, with a placid expression in her beautiful countenance which only changed when the heart was excited by any sudden passion; a mind as if

half asleep, and of a nature so child-like and pliant that it was sometimes impossible to know whether she was wise or simple. In her character there still adhered to her something of all those Ilses of the two thousand years, a mixture of Sibyl, mead-dispenser, knight's daughter and pietist. She was of the old German type and the old German beauty, but that she should suddenly become the wife of a Professor, that appeared to the troubled Doctor too much against all the laws of quiet historical development.

(To be continued.)

## BOOKS RECEIVED.

[THE OPEN COURT acknowledges the receipt of all books, but the editor cannot pledge himself to have all reviewed.]

ILLUSTRIRTE WELTGESCHICHTE. Vol. I. Von Otto von Corvin. Leipzig: Otto Spamer.

WEE FOLK OF NO-MAN'S-LAND. By Aaka. Chicago: Shepard & Johnson.

INGERSOLL ON BLASPHEMY. TRIAL OF C. B. REYNOLDS. C. P. Farrell. New York.

PRACTICAL LESSONS IN THE USE OF ENGLISH. By Mary F. Hyde. Boston: D. C. Heath & Co.

SARAH CREWE; OR, WHAT HAPPENED AT MISS MINCHIN'S. By Frances Hodgson Burnett. New York: Charles Scribner's Sons; 1888.

POEMS. Edward Rowland Sill. Boston: Houghton, Mifflin & Co.

JOYLS AND LYRICS OF THE OHIO VALLEY. John James Platt. Boston: Houghton, Mifflin & Co.

A PHYLLIS OF THE SIERRAS. Bret Harte. Boston: Houghton, Mifflin & Co.

PATRICK HENRY. American Statesmen Series. J. T. Morse, Jr., editor. Moses Colt Tyler. Boston: Houghton, Mifflin & Co.

THE SECOND SON. M. O. W. Oliphant and T. B. Aldrich. Boston: Houghton, Mifflin & Co.

SYSTEM OF ECONOMICAL CONTRADICTIONS. Vol. 1. By P. J. Proudhon. Boston: Benjamin R. Tucker.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

NO. 31. (VOL. II.—5.)

CHICAGO, MARCH 29, 1888.

{ Three Dollars per Year.  
} Single Copies, 10 cts.

## GOETHE AND THE DEVELOPMENT HYPOTHESIS.

BY PROFESSOR CALVIN THOMAS.

### II.

In the first part of this essay we discussed Goethe's general conception of Nature's *modus operandi* in the shaping of the earth. We have now to consider his speculations with regard to the development of living forms.

The studies that are now to be discussed began with the exigencies of horticulture at Weimar. In 1782 we find the busy poet-minister reading the botanical writings of Rousseau and "taking a taste" of Linnæus. In 1785 he is examining seeds under the microscope. About this time Linnæus begins to be his "daily study;" he exerts himself to master the Linnæan terminology, and a compendium of the great Swedish naturalist's system accompanies him on all his journeys. In the summer of 1785 he passes several weeks at Karlsbad, and there, in the society of helpful friends, the botanical studies make good progress. One day he comes upon an area covered with the *drosera* and is led to make further observations upon the "irritability" of plants. But, as would be supposed, these studies at Karlsbad were little more than the "analysis" of plants: The program consisted in taking a flower to pieces and ascertaining what name Linnæus had seen fit to give it. In this art Goethe complacently claims to have acquired some proficiency, although he was not enthusiastic over it, for the reason, as he very characteristically explains, that "dissecting and counting did not lie in his nature" (*Trennen und Zählen lag nicht in meiner Natur*).<sup>\*</sup> In this same connection he further observes, without explicitly making the opinion referred to his own: "We were often compelled to hear the objection that the whole science of botany, to which we were so devoted, was nothing but nomenclature; that it was a system built upon numbers, and imperfect at that, and as such could satisfy neither the understanding nor the imagination."

Upon his return to Weimar botany interests him more than ever. He carefully studies Linnæus' "Botanical Philosophy," and seeks instruction from specialists of his acquaintance. Presently, as we can see from his letters, a great idea, or what he takes to be such,

has begun to float vaguely before his mind. The earliest attempts at description are misty and poetical, but gradually the thought becomes clearer and gives him inexpressible pleasure. July 9, 1786, he writes to Frau von Stein, then the confidante of all his thoughts: "If I could but impart to another my vision and my delight, but it is impossible. And it is *no dream, no fancy*; it is a discernment of the essential form with which Nature continually, as it were, plays, and playing brings forth the manifold forms of life."<sup>\*</sup> In the autumn of 1786 he takes sudden flight to Italy and his "botanical whimsies" follow him over the Alps. Everywhere he goes the vegetation of Italy divides his attention with poetry and plastic art. Sept. 27, 1786, he writes from Padua: "It is delightful and instructive to wander about amid a strange vegetation. . . . Here in this novel variety the thought becomes more vivid that all plant forms might perhaps be developed from a single one."<sup>†</sup> Soon his mind is full of this *Urpflanze* or typical plant, and he commences to look for it, at first actually expecting to find it in Nature. This quest he soon gives up, however, and the typical plant becomes for him what it is for us, namely, an imaginary morphological norm. In 1787, while he is in Sicily, the idea suddenly flashes upon him that the various "organs" of a plant are essentially identical; that is, are variations of the same thing.<sup>‡</sup> This idea he follows up eagerly and develops in an essay: "The Metamorphosis of Plants," which was published in 1790—the poet's first actual contribution to scientific literature. This essay is small in compass and very modest in its tone. Its language aims to be scientific, but is, in fact, often figurative and poetical. Its substance is a development of the thesis that the organs of a plant, cotyledon, leaf, sepal, petal, stamen and pistil, are produced by nature through the progressive transformation of a single organ.

But now before we consider what these theories of the typical plant and of metamorphosis really meant to their propounder, and what their logical implications were, a few words may be devoted to the early history of his analogous speculations with regard to animal morphology.

It was in 1781 that Goethe began taking formal lessons in anatomy with Professor Loder of Jena. The

<sup>\*</sup> Werke XXXIII., p. 63. The essay from which I quote in the text, *Geschichte meines botanischen Studiums*, was written by Goethe in 1817, after his theories had begun to attract attention, for the purpose of showing that he had reached his conclusions, "not through any extraordinary mental gifts, not through a sudden inspiration, nor suddenly, nor unexpectedly, but through systematic effort."

<sup>\*</sup>Schöll-Fieitz: *Goethe's Briefe an Frau von Stein*, Vol. II., p. 334.

<sup>†</sup> Werke XXIV., p. 52.

<sup>‡</sup> Werke XXXIII., p. 71.



next year we find him collecting skeletons and observing their homologies. Prominent anatomists like Blumenbach, Sömmering and Camper taught that a fixed morphological distinction between man and brute was to be found in the fact that the former uniformly has the intermaxillary bone whereas the latter invariably lacks it. Goethe presently became convinced that any such distinction must be illusory. He found a perfect chain of homologies between the bony frame of man and that of the higher brutes and felt sure, to use his own significant language, that man and beast are "very closely akin" to each other. Could it be that Nature, whose method was that of gradual transition from one form to another without breaks and without barriers, had here broken this customary continuity and interposed an impassable barrier in the shape of an unfailing and absolute distinction? He felt that the integrity of his whole philosophy of nature depended upon his finding an intermaxillary bone in man. And so he went to work with his friend Loder, and, in the spring of 1784, found what he wanted. The specialists were slow in admitting his claim, but in the fullness of time it was seen that he was right.

It is not necessary to the present purpose to consider how far these ideas of Goethe had already been formulated by others or to trace in any detail the subsequent history of his morphological studies. There is no doubt that the ideas were original for him if not *with* him in the fullest sense of the word. Also what he subsequently wrote, though not inconsiderable in amount, is only a working out of the germinal conceptions already described. The question of interest here is: What did these conceptions involve? Or, to what extent were they in the line of modern evolution?

The answer to these questions turns largely upon the meaning which Goethe attached to certain words which occur constantly in his writings, namely, "Urpflanze," "Urthier," "Typus," "Urbild" and "Schema." The question is of course not so much what these words naturally denote as what they did actually connote for him. Some writers contend that Goethe's "type" was only a metaphysical abstraction involving no hypothesis of descent whatever. And undoubtedly there is some room for debate since the language employed is seldom perfectly clear. Take for example the following passage:

"This then we can have no hesitation in maintaining, that all the more perfect organisms, among them fishes, amphibians, birds, mammals and at the head of these last, man, are all formed after one archetype (nach einem Urbilde) that simply varies (hin und her weicht) more or less and is also continually developing and transforming itself through propagation (durch Fortpflanzung)."

\* Werke XXXIII., p. 261.

In this deliverance Haeckel\* sees all the essentials of modern evolution, while others, for example Kossmann,† contend that it means no more than if one were to say of half a dozen statues of Venus that they were all formed upon one type. This language certainly would not imply that they were all the bodily children of a common parent. In fact the very idea of descent from an archetype is an absurdity. But without this idea of actual bodily descent, Goethe's theory has no resemblance to the evolutionary doctrines of to-day. In fact it belongs as a theory to metaphysics or aesthetics rather than to physical science. Thus argue the writers who, with Kossmann, oppose the views of Haeckel.

With regard to the theory of metamorphosis a similar contention has been made. The well-known botanist Sachs seems to be of the opinion that Goethe's theory was a mere mental abstraction signifying, from a scientific point of view, simply nothing. Sachs would have us believe that Goethe, scrutinizing the organs of different flowering plants, and observing that their organs are not everywhere separate and distinct entities, but that here the cotyledon, elsewhere the stamen, and so on, looks more or less like a leaf, and that here and there are found organs that appear to represent a transitional state of development—simply subsumed the six different things under the name of leaf. If this be all there is of the matter, then obviously Goethe's performance was little more than a feat of nomenclature—an extension of the meaning of the word "leaf." It would be much as if one were to pick up half a dozen pebbles, and, observing in them certain resemblances in form and color, and discovering also that transitional pebbles could be found in the field which would resemble any one of the six more closely than this one would resemble any of the other five, should propound a theory of the metamorphosis of pebbles, and devise a name for the archetypal pebble from which all particular pebbles might be regarded as morphological variations.

Is this, then, what Goethe meant with his "Typus" and his "Urbild," and his metamorphosis of plants and animals? Very certainly it is not. The man who could suppose such a thing may know his botany and his zoology, but he does not know Goethe. The latter was no lover of abstractions that lead nowhere and signify nothing. Had the case been as just imagined he never would have told us that the happiest moments of his life were connected with his study of plant metamorphosis.‡ The fact seems to me entirely beyond question that Goethe's theory was a genuine hypothesis of descent. It was held somewhat vaguely and was very likely never thought out in all its detailed implications. He does not tell us how many *Urbilder* he finds it con-

\* *Natürliche Schöpfungsgeschichte*, 4th ed., p. 84 f.

† *Was Goethe ein Mitbegründer der Descendenztheorie?* Heidelberg, 1877, p. 10.

‡ *Werke* XXXIII., p. 90.



venient to assume or how these originally came into existence; and it is to be remembered that his own studies were confined to a comparatively small range of phænogamous plants and vertebrate animals. Nor does he anywhere make a serious attempt to answer the difficult questions which his hypothesis naturally raises. He dilates often, to be sure, upon the variability of specific and generic distinctions, but he dilates also upon the apparent fixity of species and genera and nowhere does he express the opinion that the variability which he himself observed is sufficient to account for the origin of species and genera. In short, his mind overleaps and ignores the difficult details of the argument. Nevertheless, after much study of the many passages in his writings which refer to this subject, I cannot doubt that his hypothesis was really one of descent. When he says, "variations of a common type," or something similar, there is always latent in the background of his mind the subaudition, "children of a common parent."

From the first awakening of his scientific sense we find that the thought of the kinship of man with the lower animals is, with Goethe, a familiar thought. In November, 1784, he writes to Knebel, apropos of his still unprinted essay upon the intermaxillary bone, saying that he has refrained in the essay from intimating his convictions that the distinction between man and brute is to be found in no particular point; and he adds: "On the contrary man is most closely related to the brute. *Vielmehr ist der Mensch auf's nächste mit den Thieren verwandt.*"\* Among the high blessings for which Faust returns thanks to the Earth-Spirit is the sense of brotherhood with all living things:

"Du führst die Reihe der Lebendigen  
Vor mir vorbei und lehrt mich meine Brüder  
Im stillen Busch, in Luft und Wasser kennen."†

This passage was probably written in 1788. In a letter of Frau von Stein to Knebel, written somewhat earlier, occurs this sentence: "Herder's new work (the 'Ideen' is referred to) makes it probable that we were once plants and animals."‡ But this idea in such explicit form is not in Herder and it is certain that Frau von Stein did not originate it. Beyond a doubt she had it from Goethe.† Then how can we understand such language as this if we attempt to eliminate the idea of descent from Goethe's theorizing: "Nature can compass her purposes only in sequence. She makes no jumps. She could not, for example, produce a horse had not all the other animals preceded on which, as on a ladder, she ascends to the structure of the horse."§

But if there could be any doubt as to the range of Goethe's speculations with regard to the descent of

man, the doubt would be set at rest by the incident of Homunculus in the Second Part of *Faust*. Homunculus is a mind without a body and his desire is to "commence existence," i. e., to acquire a body and become a genuine *homo*. He accordingly takes expert advice as to how and where he can best do this and as a result finally dashes his glass house against the throne of Galatea and dissolves himself with the phosphorescent sea, there to come up in the lapse of æons through polyp, fish, reptile, mammal, to the estate of man. In the fable Galatea represents the Love-goddess and so the beginning of Homunculus' evolution is a grand act of homage to Love—and no wonder, since it is Love that must preside over each stage of his upward progress. The symbolism is so transparent that one can only smile at the perplexity of the older commentators of *Faust* in their attempts to expound the character of Homunculus. And be it said incidentally that the poetry of the Homunculus incident is, especially at the close of it, so superb that one can only feel sorry for the people who think that the Second Part of *Faust* "doesn't count."

But it will be said that this is poetry and it will be asked what evidence there is, in plain unequivocal prose, as to Goethe's attitude upon the fundamental articles of the modern evolutionist's faith. We have seen that he early accustomed his mind to operate with vast periods of time. With regard to the mutability of specific distinctions he writes thus:

"The changeableness of plant forms which I had long been observing awakened in me the idea that the forms about us were not originally fixed and determined, but that there had been given to them, along with a singular tenacity of generic and specific character, a fortunate mobility and adaptability (Biegsamkeit) by which they had been able to accommodate themselves to such manifold terrestrial conditions and to form and transform themselves accordingly."\*

Elsewhere he writes upon the same subject:

"If, now, we look for the occasion of this manifold adaptability (Bestimmbarkeit), this is to be said first of all: Animals are formed by circumstances for circumstances; hence their inner perfection and their adaptation to external conditions."†

Concerning teleological explanations, he uses this clear and decisive language:

"The question to be asked hereafter concerning such members as, for example, the tusks of the *sus babirussa*, will not be, What are they good for? but Whence came they? It will not be said that the bull has been given horns that he may gore with them, but the question will be raised, How he came to have horns for goring."‡

Even the struggle for existence and its results in cer-

\* *Briefwechsel zwischen Goethe und Knebel*, I., p. 55.

† *Werke* XIII., p. 105.

‡ Cf. Kallischer in his excellent introduction to Goethe's scientific writings, *Werke* XXXIII., p. 64, an introduction to which the present essay is elsewhere much indebted.

§ *Riemer's Briefe von und an Goethe*, Leipzig, 1846, p. 311.

\* *Werke*, XXXIII., p. 71.

† *Werke*, XXXIII., p. 196.

‡ *Werke*, XXXIII., p. 196.



tain specific cases\* had been observed by him, although there is no evidence that he had anything like an adequate conception of the magnitude and importance of the subject. But to sum up without further multiplying quotations: The kinship of living things, the descent of man from lower orders of life, mutability of specific distinctions, progressive adaptation of organisms to external conditions, struggle for existence—all these ideas Goethe certainly had. What he did not have was the doctrine of natural selection and the vast array of observed facts which have since taken this entire subject out of the hands of poetic and philosophic generalizers and given it in charge of a new generation of scientific investigators.

Would the great German poet feel at home in this new generation? Would he breathe with pleasure and exhilaration the scientific atmosphere of our day? Du Bois-Reymond thinks not, for the reason that he lacked interest in mechanical causes; the great sciences with which he concerned himself are now quite largely occupied with questions of physics. With this opinion I incline, upon the whole, to concur. Goethe would undoubtedly be pleased to find in recent research the confirmation of many ideas that had become dear to him. But, on the other hand, he had a rooted dislike of laboratory methods, and the laboratory is triumphant. That strange superstition of his about "dissecting and counting" would make him poor company for a modern biologist. Or would he, if alive, succumb to the genius of the age and recant his famous dictum:

"Geheimnissvoll am lichten Tag  
Lässt sich Natur des Schleiers nicht berauben,  
Und was sie deinem Geist nicht offenbaren mag  
Das zwingst du ihr nicht ab mit Hebeln und mit Schrauben."

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.†

BY FELIX L. OSWALD, M. D.

Part III.

#### RACE INFLUENCES—CONTINUED.

Biographical studies have established the fact that the persistence of animal race-habits is proportioned to the length of their original influence. In a transient way even the habits of a limited number of generations are apt to become hereditary. Young pointer-dogs often volunteer the purely artificial trick enforced (for the hunter's convenience) upon a few generations of their ancestors, but without constant practice the progeny of the best hunting-dog will soon cease to "point" game. Yet, the habits acquired during the countless ages when the wild dog disputed the hunting-grounds of the wolf and the jackal, have persistently withstood the influence of domestication. The pampered spaniel, not less than the leanest hound, still provides for hard

times by burying superfluous bones. Breeds of dogs which for centuries have earned their bread by treadmill work still hunt in their dreams. The half-wild bush-dog of the Mexican Sierras joins in the howling serenades of the prairie-wolf and, like the fox, rears his whelps in deep burrows. Neglected domestic cattle revert to the original type of their species: ancestral habits will re-assert themselves at the first favorable opportunity.

The same rule holds good of inveterate race-habits of the human species. Of all the nations of Europe the Spaniards have, for the longest period, been subjected to the vicissitudes of a defensive war against foreign invaders. A thousand years before the beginning of our chronological era, Phœnician fleets already harassed the Spanish coasts from Malaga to the mouth of the Ebro. Eight centuries after the legions of Rome pushed their westward conquests to the shores of the Atlantic, though not without desperate resistance, as attested by the defeat of three successive consular armies and the unparalleled episode of Numantia, where the entire population of a large city committed suicide to avoid the alternative of surrender. After the Romans came the Vandals and Visigoths and finally the Moors, who for nearly seven centuries maintained a continual border-war against the champions of the cross. Long-continued habit is apt to become a second nature, and in the course of ages the natives of the Iberian peninsula have acquired an instinct which a modern traveler aptly describes as the *Guerilla passion*—a chronic penchant for conspiracy and insurrection. The Castilian autocrats succeeded for awhile in bridling that passion, but after the conquest of America it broke out with redoubled force, and when the colonists of the transatlantic provinces had exhausted all other pretexts of rebellion, they proceeded to quarrel among themselves and still continue to revolt against their self-elected liberal governments. Indifference to the blessings of industrial peace is no adequate explanation of that Spanish-American mutiny mania. "Are you not getting tired of those everlasting scimmages?" I once asked a Spanish-Mexican agitator. "Que mas quiere?" he asked with a look of surprise—"what better can you wish?" "es la verisima vida de un hombre"—"it's the true life-element of a man!"

Germany, too, has borne the brunt of foreign invasions, but her invaders were mostly city-conquerors. The Rhenish colonies of the Cæsars were mere fortified camps. Charlemagne, after the murderous battles of the Saxon campaign, had to content himself with founding a few dozen *Bisthümer* (bishoprics) garrisoned with soldiers and priests, to tame the pride of the Saxon princes. But the forest dwellers of the inland-districts still maintained their independence; and four hundred years after, when the prelates of the church had

\*Cf. *Werke*, XXXIII., p. 121.

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acquired sovereign power, the *Freiherren* ("free lords") of a thousand castles still defied control, and with their sport-loving retainers enjoyed as much secular freedom as Xenophon in his Arcadian hunting-lodge. They hunted and caroused; the lays of their minstrels were psalms of Naturalism, and even the ditties of the German rustics (like the ballads of the Robin Hood era) breathed defiance to clerical tyranny.\*

From despotism and the worry of city-life the countrymen of Arminius thus learned to take refuge in a communion with nature; and *Natur-liebe*—Nature-worship and the love of outdoor life, has remained a chief character-trait of the German nation. While the shores of the Mediterranean and the rivers of France and Spain are bordered by ranges of desolate sandhills, the mountains of Germany are still crowned with the glory of their primeval forests, one-third in the German Empire, one-tenth in France and one-fifteenth in Spain being the present proportion of woodlands to treeless areas. The aristocracy of Italy and Spain spend their revenues in city pleasures, while German and British nobles prefer the hunting-grounds of their ancestral estates. The German colonist, even in the prairies of Kansas, manages to surround his homestead with a grove of shade-trees. The typical Spanish-American *hacienda*, even in the heart of the tropical virgin-woods, is a sun-blistered stone-pile, surrounded by treeless fields. The Spanish-American colonist, with all his race-instincts of poetry and beauty-worship, has no eyes for the grandeur of his native Sierras, nor for the charm of the tropical vegetation and the beauty of tropical birds and butterflies, while the German schoolboy knows the favorite food-plants of every caterpillar and spends his vacations in woodland-rambles and mountain excursions. The very nursery-tales of southern and northern Europe express that curious contrast. The Spanish *recountador* edifies his infant audience with saintly biographies and miracle legends. The German fairy-tales deal in zoological allegories and hunting adventures, and their occasional supernaturalism is used to conceal an unclerical, often, indeed, decidedly anti-clerical tendency. Thus, the sleeping Barbarossa, the hero of the most popular mediæval legend, has been unmasked as an *alias* of the red-bearded Wodan, the old pagan forest-god, who has found refuge in a palace of the mountain-spirits and bides the time when the black ravens of Golgotha shall cease to darken the sky of his hunting-grounds.

The champions of the anti-Semitic crusade are compelled to admit the marvelous fact that in proportion to their number the despised Hebrew exiles can produce a grander intellectual herald-roll than any other nation of ancient or modern times, the Greeks under Pericles per-

haps alone excepted. That marvel, however, is somewhat modified by the fact that persecution, under certain circumstances, tends to stimulate, rather than repress, intellectual activity. For nearly fourteen hundred years fanatical intolerance debarred the Hebrew refugees from nearly all employments but that of commerce, literature and speculative philosophy. They could not own land, they could not own mines, they could not manufacture, they could not serve the state in the humblest capacity, they could not even plow: they had to huddle together in walled cities for fear of being slain by the priest-ridden country population. They had to "live by their wits," and those wits accordingly were developed far beyond the average intellectual standard of each century. No Christian of the middle ages could have written the *Ethics* of Spinoza. No Christian or Moorish Spaniard could have composed the epigrams of Rabbi Gabirol; and the burgers of Dusseldorf, who a month ago voted against the erection of the Heine monument, proved that the intellect of their exiled fellow-citizen ranked more than a century ahead of his age. Even now, when the gospel of liberty and equality has broken the barriers of intolerance, our Hebrew fellow-citizens still fight in the front rank of intellectual progress. Their names stand high in every department of progressive science, they join the vanguard of every social and ethical reform; but at the same time they also continue to evince a remarkable indifference to the culture of those physical powers which were stunted by the bigotry of the middle ages. They practice gymnastics in quest of health rather than of pleasure; they shun the army, they abhor and avoid the prize-ring. Like the sea-faring Greeks, they stick to the pursuits that helped them to weather long centuries of persecution.

The Anglo-Saxon race, on the other hand, has attained its supremacy literally by victories of the strong hand, by martial prowess and physical energy. From the time of Odin worship to the invasion of the Normans, the countrymen of Hengist and Horsa never met a superior foe. From the warlike tribes of northern Germany they wrested the richest district of the Danish border, as they afterwards wrested Great Britain from the numerically superior tribes of the Celtic aborigines. Their stubborn resistance prevailed against the aggressive vigor of the Norman conquerors; by their superiority of physical prowess they ousted their French rivals from Canada and Hindostan, and their Holland rivals from southern Africa. In peace and war, in the perils of the sea, as in the struggle and the wilderness of an untamed continent, they learned to rely on expedients of physical strength, and the worship of physical fortitude thus became a hereditary character-trait of their nation. The anti-physical polemics of their creed have proved utterly unavailing against that tendency. In "merry old England" hard-working rustics would walk scores

\*Witness that memorable old *Jäger-lied*:

"Nun kehr ich öimmer wieder ins graue Dorf hinab,  
Im Walde will ich leben, im Wald grabt mir mein Grab,  
Wo mir dess Pflüffen Kühe nicht drauf zur Weide gehn,  
Das Wild roll drueber springen; Kein Kreuz im Wege stehn."



of miles to witness the decision of a wrestling-match or an inter-county archery contest, and in the sabbatarian metropolis of Quakerdom the same enthusiasm still kindles about every prominent ball-game or foot-race. The same newspapers that swell their pages by copying the homilies of a Brooklyn revivalist, swell their subscription list by detailing the exploits of a Boston prize-fighter.

#### THE FUNDAMENTAL PROPERTIES OF MATTER.

BY J. G. VOGT.

II.

*Translated from the German by F. W. Morton.*

Let us imagine a center of condensation in the state of greatest laxity or attenuation, and, therefore, subject to the maximum value of the negative fluctuation. Were it let entirely free, or could it wholly overcome the opposition of its environment, it would immediately have a tendency to seek the maximum value of condensation. Since in a continuous substance each center of condensation has to be reckoned with its environment, i. e. has to overcome its opposition (for *each* center of condensation seeks of its own accord to attain to the maximum value of the positive fluctuation), this maximum value cannot be reached at one time, but only by gradual steps. The volume of the center of condensation will *gradually* become smaller under thousands of these graduations. We have, therefore, to conceive of a center of condensation in unbroken, powerful *vibrations of contraction*, with the help of which it seeks to destroy the opposition of its environment. Further, the more powerful or energetic these vibrations are, the higher is the negative fluctuation; and the weaker they become, the more the center of condensation approaches the maximum value of the positive fluctuation. Thus it accomplishes its purpose and sets free its own action. According to the fineness of the distinction to be drawn, we can interpose between the two maximum values of the negative and positive fluctuations an immeasurable scale of volumes, i. e. in respect to density, which the center of condensation has to traverse by virtue of its contraction vibrations. Here we come back to the foundation of elementary feeling.

It is now perfectly clear that when we conceive of these vibrations of contraction in the sense just explained as a manifestation of mechanical power, we have fundamentally a much safer and more definite idea of the elementary condition of matter than that of the former conception of matter, and above all of the kinetic. It must not here be overlooked that in such a conception of matter or substance we have to deal only with the mechanical *form* of action. The essence of matter or the essence of the indwelling power or energy is a thing about which only an ingenuous realist will trouble himself. The first and only point of union for all philosophies or sciences lies in the *form* of action and not in the

nature or essence of the effective power and its material embodiment. All that the kinetic philosopher can say is that his atom or point moves in transverse vibrations. The atom itself is an accepted fact. These circumstances we must always keep clearly in mind when we do not wish radically to go astray.

The concentric vibrations of the centers of condensation show us with strict exactness the *scope* and *direction* of the elementary motions; while the kinetic conception of matter clearly proves, even in its fundamental basis, the impossibility of such precise statements. According to the view of the kinetic philosopher, the hard atoms must vibrate *transversally*, in all directions; and in these vibrations must strike against one another. In this fundamental conception law evidently does not prevail, but *chance* itself, or, in other words, *chaos*. When will such a vibrating atom strike another? How can the intermediate spaces be computed or how can a phenomenon subject to law, and influenced by time and space, be developed from such uncertainties? The absurdity of such a fundamental conception will clearly appear, if, in place of these atoms, we suppose the celestial bodies to describe such transverse paths of vibration instead of elliptical courses. Who would be able to demonstrate any one regular occurrence—a world-process—without first accurately determining these transverse paths of vibration in respect to extension, direction, and the possibility of their collision with other courses? Therefore, not even in respect to the physical phenomena, the mechanical occurrences of the world, is this kinetic conception of matter applicable, to that for which it was simply and solely created. How can any one physical explanation, founded upon it, find credence when the conception itself in its fundamental basis is lame and untenable?

On the other hand, the contracting vibrations of a center of condensation correspond to the above-mentioned accomplishment of a strong and undeviating regularity; just as do the transverse motions of the kinetic philosopher's atom. Indeed, we may say that they suffice to explain the monotony which I have censured above in the purposeless, vibrating atoms of kinetics. Our conception of matter, therefore, is entirely sufficient for an explanation of the physical, monotonously regular phenomena of the inorganic world, and may be applied, treated and elaborated with as much mathematical exactitude as the kinetic conception of matter.

But it affords in this respect infinitely more than the kinetic conception of matter; it offers us an invaluable means for establishing the principle of feeling, for explaining the vast realm of organic phenomena which even to-day neither the kinetic nor any other conception has in the slightest degree made possible. With the same right with which the kinetic philosopher postulates a purely mechanical, i. e. a blindly acting and pur-



poseless force, we may assume the world-substance to be a *feeling* substance and represent the motions or vibrations of contraction fundamentally as expressions or phenomena of feeling. Moreover, in its rude outlines, the idea of such contractile centers of condensation as a *feeling* substance offers us no difficulty. But let us apply ourselves directly to the problem.

The world-process, which goes on before our eyes, bears in itself one unmistakable characteristic. Not alone the investigation of our own narrow place of abode, but even the physics of the stars, decipher from the bright orbs of the firmament the mysterious purpose which the whole world-process follows; and this, mechanically expressed, can be sought in nothing else than in *condensation*. The Ionic philosophers have already given expression to this thought. The condensation of the spheres, as the end of all physical processes, changes and formations, stands so unassailably before our scientific mind, that no further foundation for this is needed. In these cosmical changes is mirrored the fundamental tendency of the elementary centers of condensation.

Now, how near lies the thought of attributing to these centers of condensation, as *feeling* entities, the effort or tendency to attain in the positive maximum value of condensation an *absolute condition of rest*. This maximum value incorporates for us the absolute *rest*, *Nirvana*, the *sinking into peaceful, unconscious nothingness*. In opposition to this each *negative* fluctuation drives the center of condensation from this condition of repose and leads it to activity, to conscious feeling, to pleasure, perhaps to pain, as elementary qualities of feeling.

At a single blow, the contracting motions of a condensation center receive, in this way, a sense, which seems to me *purposeful*; they are the expression of an effort which accomplishes a purpose, a real world-purpose. The whole mechanism of the world rests upon this, that a part of the world-substance can attain to this end only at the expense of another. While a part of the matter strives for the condition of repose, another part, according to the views expressed above, falls to feeling activity. Life and death go always hand in hand.

If we revert now to the above-mentioned scale of volumes, or vibrations of contraction, we can very easily bring this, as a phenomenon of motion founded purely upon mechanics, into connection with a corresponding *scale of feeling*; and that, too, so that each vibration of contraction of a different value corresponds also to a different mode of feeling, and brings to expression each shade in the life of feeling. To every mechanical motion of contraction corresponds a moment of feeling; to speak in the sense of Spinoza, to each *outer* mechanical moment of activity corresponds an *inner* activity of feeling, and as every mechanical vibration of contraction is of different value different qualities of feeling correspond to these values.

We have now scarcely any standard or point of reference by which to rank together in an unbroken scale the immeasurable series of feelings as they manifest themselves in our ego. We can only hypothetically assume, that, e. g. the modes of feeling of the five-sense categories follow one another; that they perhaps possess the approximate means of a scale of feeling; that is, that they would correspond approximately to the medium degree of density of the centers of condensation. We are possibly right in this assumption, since the modes of feeling of the five-sense categories are, in comparison with the feelings of pleasure and pain, of more *indifferent* nature. The vast series of pleasurable feelings would perhaps fall in the positive direction; while the feelings of discomfort and pain would belong to the negative end of the scale. For, the higher the negative fluctuation which the center of condensation suffers, the more will it be threatened in its duration, the more will it be removed from its real end and purpose, the more correct shall we be in supposing here a feeling of pain, and with it the energetic effort to escape this painful condition by means of powerful vibrations of contraction. I suggest, as I said, this comparison only as an hypothesis.

The chief thing, is that we are to ascribe to each separate vibration of contraction, and therefore to each change of volume in a center of condensation, a different quality of feeling, just as in physics each definite color or line in the spectrum corresponds to some one wave of ether. Thus, just as in the scale of color the different modes of feeling merge into one another by thousands of gradual transitions, so without doubt we are to class together all other sensations, feelings and effects in the fundamental scale of the whole.

Now, it must at once be apparent that these fundamental expressions of feeling only have sense when they are joined with consciousness, i. e. occur simply as conscious feelings. For what in general would unconscious feelings signify? We can at most distinguish different degrees of brightness or intensity of the conscious feeling. If, for instance, we put our head between our legs, and a state of tension be produced in the seat of consciousness by the increased flow of blood to the brain, we see nature in more beautiful colors. The blue of heaven is more intense, the green of the meadows stronger. On the other hand, in our intellectual images (in distinction from the immediate images of perception), we see paler colors and vaguer forms. We can here evidently speak only of different degrees of brightness and intensity of the conscious feeling. These degrees of brightness can be subjected to any fluctuations whatever, fluctuations however which move only within definite bounds and at most, apparently, within very narrow ones.

An unconscious, and therefore a feelingless, condition



will first be reached when the centers of condensation draw near to the maximum value of the positive fluctuation and finally reach it. This maximum value alone, or the approach to it, signifies unconsciousness, absolute rest, sinking into Nirvana, nothingness; removal from this means conscious feeling, life, activity, pleasure and pain.

In this, however, one thing must be observed, viz., that in this fundamental scale of feeling only the simple elementary qualities of feeling, as we find them in our living senses, perceptions and feelings, can have place. It would be idle to seek to enroll here, already formed, any form of activity like an organized principle, or any intellectual function like the idea of space, etc. There are products of development which are first distinguished in a far advanced world-process, and which must be conceived of and pronounced as characteristics of the great realm of organic phenomena.

#### MATTER AND ITS QUALITIES.

The essay by J. G. Vogt on "The Fundamental Properties of Matter" causes me to express the following definition of my understanding of the monistic position:

The relation of the chicken to the egg is this, that the egg contains all the substance and forms which will through interaction evolve the live chicken as it breaks through the shell. Only warmth has to come to it from the outside and perhaps some oxygen through the pores of the shell.

In a similar relation man of to-day stands to our earth with the influence of the sun and all cosmo-surrundings, as they were at the time when organic life apparently commenced on earth—certainly in the most simple forms. Out of the joint action of all there was then, which has since been acting together, the present man has resulted, and not from a certain atom or a certain portion of matter. The whole earth with all its surrundings stands in place of the egg. The chicken results from the egg in three weeks; man has resulted from the primeval earth in millions of years.

EDWARD C. HEGELER.

#### THE CHICKEN AND THE EGG.

The comparison of the primeval earth to an egg is most obvious, and serves exquisitely as a monistic explanation of evolution at large. Indeed, the theory of evolution was first brought to light by observing the chicken develop from the egg. The egg afforded a clue to comparative embryology, and comparative embryology is the basis of the evolution theory.

But we must bear in mind that an allegory is always imperfect; as the Romans said, *omne simile claudicat*—it limps; and if it did not, if it were applicable in every respect, it would not be a simile; it would be an identity. Similes are illustrative and instructive, but we must observe wherein the simile is not adequate.

The difference between an egg and the primitive earth (or perhaps the nebula from which the sun and his planets developed), is this: A chicken existed before the egg, and the egg develops a chicken because it contains the memories of many millions of chicken ancestors. The egg would not exist but for the hen. The hen transmits certain forms of motion which are the sum total of all the experiences of herself and her ancestors to a part of her body, the *ovule*. The ovule, when fertilized, grows and is excreted as an egg.

The famous question, "Which was first, the hen or the egg?" must be answered: "Neither." Living protoplasm was first, which under certain conditions produced the egg-bearing hen.

A nebula contains all the conditions for producing a planetary system, and on the surface of its planets worlds like ours. Matter, it must be assumed, possesses the qualities of motion and elementary feeling; it can merely through combination in a long process of evolution develop the higher forms of existence, organic life, consciousness and rational will. This evolution is inherent in matter, and is no process of evolving transmitted memories which contain a special form of life and only that form. There is no world-hen who imparted her experiences and intelligence to the produce of her creation. Such a conception of evolution, which places its outcome and its ideal aim at the beginning, leads to dualism. It assumes a transcendent and supernatural creator, and is forgetful of the fact that it would have been an unwise, not to say reckless and immoral, act for a being in the grand state of all-perfection to produce a world which on the thorny path of immeasurable pain and constant self-sacrifice had, with trouble, to climb up to higher stages of existence.

The only solution which is offered as a monistic conception of the world is to assume that matter is not dead, but active, viz.: it possesses motion and elementary feeling, from which the higher forms of life are produced. Evolution is development of form. The progress of evolution produces forms which never before existed, and in the struggle for existence some forms perish perhaps forever, while others, adapted to their surrundings and improved so as to acquire more power of resistance to destructive influences, survive.

P. C.

#### VICTOR HUGO'S CREED.

My soul drinks in its future life,  
Like some green forest thrice cut down,  
Whose shoots defy the axman's strife,  
And skyward spread a greener crown.

While sunshine gilds my aged head  
And bounteous earth supplies my food,  
The lamps of God their soft light shed  
And distant worlds are understood.



Say not my soul is but a clod,  
Resultant of my body's powers;  
She plumes her wings to fly to God,  
And will not rest outside His bowers.

The winter's snows are on my brow,  
But summer's suns more brightly glow,  
And violets, lilacs, roses now  
Seem sweeter than long years ago.

As I approach my earthly end,  
Much plainer can I hear afar  
Immortal symphonies which blend  
To welcome me from star to star.

Though marvelous, it still is plain;  
A fairy tale, yet history;  
Losing earth, a heaven we gain—  
With death win immortality.

For fifty years my willing pen  
In history, drama and romance,  
With satires, sonnets or with men,  
Has flown or danced its busy dance.

All themes I tried, and yet I know  
Ten thousand times as much unsaid  
Remains in me! It must be so,  
Though ages should not find the dead.

When unto dust we turn once more,  
We can say, "one day's work's done,"  
We may say, "our work is o'er;"  
For life will scarcely have begun.

The tomb is not an endless night;  
It is a thoroughfare—a way  
That closes in a soft twilight  
And opens in eternal day.

Moved by the love of God, I find  
That I must work, as did Voltaire,  
Who loved the world and all mankind;  
But God is Love! Let none despair!

Our work on earth is just begun;  
Our monuments will later rise,  
To bathe their summits in the sun,  
And shine in God's eternal skies!

—Translated by Row.

## CORRESPONDENCE.

### GOETHE'S VIEW OF IMMANENCE.

To the Editor: PORT REED, FLA., March 15th, 1888.

In the controversy about the immanence or transcendentality of force in matter, does not that wonderfully plastic enunciation of Goethe's, of which (I fear inadequately) I attempt the following translation, come in as an analogy:—

The God whose being in mine showers,  
Can rouse my soul to active will;  
The God whose throne's beyond my powers,  
For purpose, will and deed is nil.

If the form of the translation is insufficient, it interprets at least, I think, what is essentially the thought of the great German poet.

Yours truly,

DR. LINDORME.

[Dr. Lindorme's translation is very expressive. Bayard Taylor's version does not seem to be quite so clear and strong, although he translates more literally.]

"The God that in my breast is owned,  
Can deeply stir the inner sources;  
The God above my powers enthroned,  
He cannot change external forces."

The translation by Charles T. Brooks is not correct in line 3:

"The God who dwells within my soul  
Can heave its depths at any hour,  
Who holds o'er all my faculties control,  
Has o'er the outer world no power."

The original words are taken from Faust I, 4:

*Der Gott, der mir im Busen wohnt,  
Kann tief mein Innerstes erregen;  
Der über allen meinen Kräften thronet,  
Er kann nach aussen nichts bewegen.*

The passage is of great importance and it will repay the trouble of reading it over with its context. It contains the chief reason for Faust's complaint and pessimism, which must be looked for in his dualistic conception of God and life.

Faust says that he will presumably feel the pain of life in every attire:

*In jedem Kleide werd ich wohl die Pein  
Des irdgen Erdenlebens fühlen.  
[In every dress I well may feel the sore  
Of this low earth-life's melancholy.]*

—Translated by Brooks.

The world can offer nothing:

*Was kann die Welt mir wohl gewähren?*

[What from the world have I to gain?—Brooks.

Certainly a God who lives in his bosom can stir his will and rouse his enthusiasm; but the supernatural God is helpless. Faust feels himself, on the one hand, too old for mere play, too earnest and enlightened to be a puppet in God's marionette-theatre:

*Zu alt bin ich um nur zu spielen.*

[I am too old merely to play.]

And on the other hand he feels too young to live without aspiration:

*Zu jung um ohne Wunsch zu sein.*

[Too young to wish for nothing more.]—Brooks.

He yearns for freedom, the chance of independent work and creative activity. Yet, as a marionette, he must renounce all hope:

*Entbehren sollst du, sollst entbehren,  
Das ist der ewige Gesang,  
Der jedem an die Ohren klingt.*

[Renounce, renounce, Renunciation—  
Such is the everlasting song,  
That in the ears of all men rings.]—Brooks.

Faust laments that "every day kills

Every presentiment of zest  
With wayward scepticism, chases  
The fair creation from his [my] breast,  
With all life's thousand cold grimaces.—Brooks.

*[Der selbst die Ahnung jeder Lust  
Mit eigenemgen Kräfte mindert,  
Die Schöpfung meiner regen Brust  
Mit tausend Lebensfräzen hindert.]*

\*The translators introduce here words which lead astray. Bayard Taylor translates "I am too old to play with passion." Charles T. Brooks' version is better: "I am too old to live for folly."



So by the burden of my days oppressed,  
 Death is desired and life a thing unblest,—*Bayard Taylor.*  
*[Und so ist mir das Dasein eine Last,  
 Der Tod erwünscht, das Leben mir verhaßt.]*

Magic cannot cure Faust's longing, and his yearning for the intercourse with the world of spirits affords no satisfaction. His life is a course of errors, until he finds at the end of his career, peace, contentment and salvation in work in energetic activity. The field of his labor is not some supernatural dream-land, but this world of ours, and he devotes his efforts to the benefit of human kind:

To many millions let me furnish soil,  
 Though not secure, yet free to active toil;  
 Green, fertile fields, where men and herds go forth  
 At once, with comfort on the newest earth,  
 And swiftly settled on the hill's firm base,  
 Created by the bold, industrious race.  
 A land like Paradise here, round about:  
 Up to the brink the tide may run without,  
 And though it gnaw to burst with force the limit,  
 By common impulse all unite to hem it.  
 Yes, to this thought I hold with firm persistency;  
 The last result of wisdom stamps it true;  
*He only earns his freedom and existence  
 Who daily conquers them anew.*  
 Thus here by dangers girt, shall glide away  
 Of childhood, manhood, age, the vigorous day;  
 And such a throng I fain would see  
 Stand on free soil among a people free!—*Bayard Taylor.*

Bayard Taylor says in his note to the quoted passage: "If Faust has only given 'free activity' and not absolute 'security' to the millions who shall come, he sees, at last, the great value of their very insecurity, as an agent which shall keep alive the virtues of vigilance, association and the unselfish labor of each for the common good."

Thus Faust finds atonement in Monism; he finds satisfaction and the peace of his soul not in the rest of leisurely security but in a constant struggle for freedom and existence. He is no longer a tool in the hands of some one beyond, since his freedom is the result of his own action. It is a boon of the God who lives in his bosom.

The contemplation of his plans and their realization thrills Faust with joy. It is a moment of rapture filled with the bliss of eternity and in the hour of his death he feels the spell of immortality—of an immanent immortality.

Then dared I hail the moment fleeing:  
 "Ah, still delay—thou art so fair!"  
*The traces cannot of mine earthly being,  
 In aons perish—they are there!*  
 In proud fore-seeing of such lofty bliss,  
 I now enjoy the highest moment—this!—*Bayard Taylor.*

EDITOR.]

#### LIBERALISM AND THE OPEN COURT.

MR. HEGELER: March 19, 1888.  
*Dear Sir*—I cannot join "A Monist," in No. 29, in his desire that everything save technical Monism should be excluded from THE OPEN COURT. I trust your journal will take a wider career than that—will fill the place, now unoccupied, of leader of the liberal press of this country. I am glad it has written Monism on its banner, but cannot it find room to write Liberalism beside it? Few understand how prevalent liberalism is among the educated people of the United States, and how much in need it stands of an organ. Nearly all the able writers are liberals, and their contributions would insure the success of a journal pledged to that cause. THE OPEN COURT has already offered on its title page, among others, the names of Col. Higginson, Mr. Parton and John Burroughs; of Felix Oswald, W. L. Garrison and Thos. Davidson. These are names which command the instant attention of every intelligent man in the country—of every man whose

attention is worth commanding. One could easily name twenty-five others whose signatures are of equal value to any new journal seeking to gain an intelligent public hearing. They are all liberals. It would be hard, indeed, to find a writer of national reputation, of commanding position, who is not a liberal. But while these leaders of national thought contribute to the literature of fiction and criticism and art and science, there is no avenue, no special literary organ, by which they can reach the public, and by which the public can hear them, on questions of ethics and religion and philosophy. New journals usually have to work hard and long to gain the public ear, but here is an opportunity ready provided.

Turning to Monism, all philosophical readers of THE OPEN COURT must await with deep interest the fuller exposition of this new system. "A Monist" seems to think that a more definite statement of its principles, such as other philosophies and theologies offer, would be acceptable to readers, and this is my impression also. I presume I am like the other special workers in philosophy and psychology in this country—it would be a pleasure to respond to THE OPEN COURT's friendly invitation to comment on its system of belief, but this is impossible until the system is more definitely outlined. It would be an aid, for example, to know what the All is; whether it is simply everything that exists and may exist, or a distinct entity with attributes, and what the attributes are. Spinoza had an All which he named Universal Substance; would not a comparison of the two be an excellent method of elucidation? Faithfully yours, A LIBERAL.

#### "OPEN COURT" OR "MONIST."

To the Editor:

In answer to "A Monist," in No. 29 of THE OPEN COURT, allow me to say that I prefer the title OPEN COURT, and I think it the most appropriate for a journal devoting its work to conciliating religion with science. The journal can always be monistic, but it must also be an OPEN COURT, where all sides can have a hearing and a fair trial before judgment is pronounced. The articles mentioned by "A Monist" were certainly very interesting and intended to elevate the moral and social standing of humanity and this should be the first object of every human being. I am a believer in the monistic theory of the universe, but Monism as well as all other isms will be a failure unless intended to bring about Monism between rich and poor, that is, the recognition of equality and dependence on one another. This cannot be done by any state law or force, and the social problem will not be solved until ethics and morality are placed above all isms and religion, when every man will say with Thomas Paine: This world is my Country, to do good is my Religion.

Yours, etc., G. H. SCHEEL.

#### BOOK REVIEWS.

IDYLS AND LYRICS OF THE OHIO VALLEY. By John James Piatt. Boston: Houghton, Mifflin & Co.

These poems are what their title partially explains, descriptive of Western pioneer life and its natural scenery, if it is any longer permissible to locate the field of the Western pioneer so far east as Ohio. But all things are relative, even those limits to a cultured civilization laid down in geographical lines, and to a certain order of Eastern imagination we do not doubt the "lucky" state of Ohio is quite far enough removed for even its strongest stretching to include. Most of Mr. Piatt's poems deal with themes drawn from nature and the homely experiences of farm and country life. He is essentially an out-doors poet, and there is here a singular, some would say refreshing, absence of the spirit of modern introspection, doubt and distrust of life and the



universe's worth. Mr. Patti's verse is everywhere characterized by its objectivity—a rare virtue among any class of writers in this day—and that will bear fruit among his readers, doubtless, in teaching them to follow his example and look outside themselves for life's main joy and instruction.

C. P. W.

**THE SECOND SON.** By *M. O. W. Oliphant* and *T. B. Aldrich*. Boston: Houghton, Mifflin & Co.

Readers of this story in the serial form, as it appeared in *The Atlantic Monthly*, were struck by the singular character of its double authorship. The combination of the serene, intellectual traits, united to a high order of English respectability and commonplaceness, represented in Mrs. Oliphant, with a genius as tricky and unique and wholly modern and American as Aldrich's was as strange as it was unexpected. Yet the amalgamation of the two authors has been more successfully accomplished than was expected, and we should not like to accept the task of separating and naming the part of either in the work before us. The story has a decidedly English atmosphere and flavor, but we suspect some of the finer strokes in the delineation of Lily's character are by another's hands than her compatriot's. Anyway the story affords pleasant reading and is an excellent study of those mixed and warring social conditions that are found in the older civilizations across seas.

C. P. W.

**THE ENGLISH IN THE WEST INDIES.** By *James Anthony Froude*. New York: Charles Scribner's Sons.

Mr. Froude is a voluminous writer whose reputation rests chiefly on his "History of England," his various essays entitled "Short Studies on Great Subjects," his extravagant biography of Cæsar, and the remarkable course he pursued as Carlyle's literary executor. Mr. Froude has scarcely recovered from the numerous attacks that the critics made on him on account of the Carlyle papers, when, by the publication of this latest volume, he again exposes himself. The great redeeming feature of our author's work is his style. But it is like beauty without character. Mr. Froude contradicts himself; his statements are full of inaccuracies, and, lastly, his method of making his point, to say the least, calls for disapprobation.

The object of the whole book is to make an attack on Gladstone and to show that home-rule ought not to be granted to Ireland.

E. G. B.

The colored print of Gladstone in the March number of the *Art Amateur* is almost inevitably somewhat raw in color, and yet it is very effective at a proper distance by its admirable grouping and strong relief. The wood cuts scattered through the number are bold and free, especially the Breton Ferry by Walter Satterlee. "Animal Locomotion" gives an account of the work done by instantaneous photography in giving us the exact positions of the limbs in violent motion. It is pleasant to find that in many cases the unrelenting photograph confirms the drawing of those artists who have been celebrated for their skill in painting animals. They will certainly afford valuable materials for artists' study even if they need not be literally copied. The number is mainly devoted to designs for household furniture and other branches of decorative art. An interesting paragraph gives an account of the process of photographing by "the flash light." If this is brought to perfection it will certainly produce many beautiful and wonderful results and light up the dark places most effectively. It has been found especially useful in *post mortem* photography, which is often of great importance. An amusing novelty, called "The Transition Portrait," is also mentioned, by which two or more phases of the human countenance are presented in one photograph. Other practical improvements in the photograph are also recorded.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

## CHAPTER X.

## THE WOOING.

A few hours after his friend had left the estate, the Professor entered the study of the proprietor, who exclaimed, looking up from his work: "The gypsies have disappeared, and with them your friend. We are all sorry that the Doctor could not remain longer."

"With you lies the decision whether I shall linger here," rejoined the Professor, with such deep earnestness that the host arose, and looked inquiringly at his guest. "I come to ask a great boon of you," continued the Professor, "and I must depart hence if you refuse it me."

"Speak out, Professor," replied he.

"It is impossible for us to continue any longer in the easy relations of host and guest. I seek to gain the affections of your daughter Ilse."

The proprietor started, and the hand of the strong man grasped the table.

"I know what I am asking of you," cried the Professor, with an outburst of feeling. "I am calling upon you to give me your greatest treasure; I know that it will make your life poorer, for I shall deprive you of that which has been your joy, help and pride."

"And so," murmured the proprietor, gloomily, "you anticipate what the father would say."

"I fear that at this moment you consider me an intruder into the peace of your home," continued the Professor; "but though it may be difficult for you to be indulgent towards me, you ought to know all. I first saw her in the church, and her religious fervor impressed me powerfully. I have lived in the house with her, and felt more every hour how beautiful and lovable she is. The influence she exercises over me is irresistible. The passion with which she has inspired me has become so great, that the thought of being separated from her fills me with dismay. I long to be united to her and to make her my wife."

Thus spoke the scholar, as ingenuously as a child.

"And to what extent have you shown your feelings to my daughter?" asked the father.

"I have twice in an outburst of feeling pressed her hand," answered the Professor.

"Have you ever spoken to her of your love?"

"If I had I should not stand before you now as I do," rejoined the Professor. "I am entirely unknown to you, and was brought here by peculiar circumstances; and I am not in the happy position of a wooer who can appeal to a long acquaintance. You have shown me unusual hospitality, and I am in duty bound not to abuse your confidence. I will not, unbeknown to you, endeavor to win a heart which is so closely bound up in your life."

\*Copyrighted.



The father inclined his head assentingly. "And have you the assurance of winning her love?"

"I am no child and can see that she is warmly attached to me. But of the depth and duration of the feelings of a young girl neither of us can judge. At times I have had the blessed conviction that she had a tender feeling for me, but it is just the unembarrassed innocence of her feelings that makes me uncertain; and I must confess to you that I think it possible these feelings may pass away."

The father looked at this man who was endeavoring to judge impartially, but whose whole frame was trembling. "It is, sir, my duty to yield to the wishes of my child's heart, if they are powerful enough to induce her to leave her home for that of another man—provided that I myself have not the conviction that it would be detrimental to her happiness. Your acquaintance with my daughter has been so short that I do not feel myself in the difficult position of having to give my consent, or to make my daughter unhappy, and your confession makes it possible for me to prevent what would, perhaps, in many respects, be unwelcome to me. Indeed, you are even now a stranger, and when I invited you to stay with us I did something that may have an unfortunate result for me and mine."

As the proprietor spoke thus in the excitement of the moment, his eyes fell upon the arm which had bled yesterday, and then on the manly features of the pale countenance before him. He broke off his speech, and laying his hand on the shoulder of the other exclaimed:—

"No, that is not the feeling of my heart, and I ought not to answer you thus."

He paced up and down the room endeavoring to be composed.

"But you also must listen to a word in confidence, and do not be angry with me," he continued, more tranquilly. "I know very well that I have not brought up my daughter for myself, and that I must at some time accustom myself to do without her; but our acquaintance is too short to judge whether my child would find peace or happiness if she were united to you. When I tell you that I esteem you and take pleasure in your society, that has nothing to do with the present question. If you were a country gentleman like me, I should listen to your communications with a lighter heart, for during the time of your stay here I should have been able to form a decided opinion of your qualifications. The difference of our vocations makes it not only difficult for me to judge of you, but also dangerous for the future of my child. If a father wishes that his daughter should marry a man who has similar occupations to himself, he is justified in so doing in every sphere of life, and more especially as a country gentleman of my stamp; for the qualifications of our children consist partly in this, that

they grow up as the helpmeets of their parents. What Ilse has learnt in my house gives me the assurance that, as the wife of a country gentleman, she would fill her place perfectly; nay, she might supply the deficiencies of her husband, and that would secure her a comfortable life, even though there were something more to be desired in the husband. As the wife of a Professor, she will have little use for what she knows, and she will feel unhappy at not having learnt many other things."

"I admit that she will be deprived of much; I lay little stress on what you might call her deficiencies," said the Professor. "I request you to trust this matter to me and the future."

"Then, Professor, I will answer you as candidly as you have spoken to me. I must not decline your proposal hastily. I will not oppose what may perhaps be for the happiness of my daughter; and yet I cannot, with the imperfect knowledge which I have of your position, agree to it. I am at this moment in the awkward position of not knowing how I can obtain this knowledge."

"I can well understand how unsatisfactory to you must be any opinion concerning me which you may obtain from strangers; yet you will have to be content to do so," answered the Professor with dignity.

The father assented silently.

"First, I beg to inform you concerning my financial circumstances."

He mentioned his income, gave a faithful account of the sources from which he derived it, and laid a written statement on the writing-table.

"My legal adviser, who bears a high repute in the University, will give you any confirmation you may wish of these details. With respect to my capacity as teacher and my position at the University, I must refer you to the judgment of my colleagues and the opinion which is held concerning it in the city."

The proprietor looked at the statement.

"Even the significance of these sums as regards your position is not quite clear to me. Having no acquaintance in your town, I have no facilities for obtaining further information concerning you. But, Professor, I will without delay endeavor to obtain all the information I can. I will start for your home to-morrow."

"Oh, I thank you," exclaimed the Professor, grasping his hand.

"Not yet," answered he, withdrawing it.

"I will, of course, if you like, accompany you," continued the Professor.

"I do not wish that," replied the proprietor. "Only write letters of introduction for me to your acquaintances; for the rest I must rely upon my own inquiries and on chance. But, Professor, this journey will only confirm your statements, of the truth of which I am already convinced, and I may obtain the judgment of others concerning you, which will no doubt accord



with mine. But let us suppose that the information is satisfactory to me, what will be the consequence?"

"That you will permit me to prolong my stay in your house," said the Professor; "that you will trustingly permit me to pay my addresses to your daughter and that you will give your consent to our marriage as soon as I am certain of your daughter's affection."

"Such arrangements for wooing are uncommon," said the father, with a saddened smile; "but they are not unwelcome to a farmer. We are accustomed to see fruits ripen slowly. Thus, Professor, after my journey we shall all three retain freedom of choice and a final decision. This conversation must remain secret."

"That is also my desire," said the Professor.

Again a slight smile flitted over the grave countenance of the host.

"In order to make so sudden a journey less surprising you had better remain here; but, during my absence, refrain from any increase of intimacy with my daughter. You see what great confidence I place in you."

Thus the Professor had compelled his host to become the confidant of his love. It was a delightful compact between passion and conscience that the scholar had entered into, and yet there was an error in this arrangement. The agreement, which he had effected with eager spirit and beating heart, turned out a little different to what he had represented to himself and to the father; for, between the three individuals who were now to enter upon this high-minded method of wooing, all easy intercourse had suddenly vanished. When Ilse, beaming with happiness, met the gentleman on the morning of the eventful conversation, she found her heaven obscured and overshadowed with dark clouds. The Professor was uneasy and gloomy; he worked almost the whole day in his room, and when the little ones in the evening begged him to tell them some stories, he declined, took hold of the head of the little sister with both hands, kissed her forehead and laid his own head upon it as if he wished the child to support him. The words that he addressed to Ilse were few and constrained, and yet his eyes were fixed incessantly upon her, but inquiringly and doubtfully; and Ilse was surprised also at her father, who appeared absent-minded and sorrowful. A secret had arisen between her father and herself that deeply absorbed him; nay, even between the two men matters were not as they had been. Her father, indeed, spoke sometimes in a low voice, to the friend, but she observed a constraint in both when they talked on indifferent subjects.

Then the next morning there was the secret journey of the father, which in few words he described, as on unimportant business. Had everything changed about her since that eventful evening? Her heart beat anxiously. A sense of insecurity came over her—the fear of something that would be adverse to her. Sor-

rowfully she withdrew to her room, where she struggled with bitter thoughts and avoided being alone with the man she loved.

Of course the change in the loved one became at once perceptible to the Professor, and it tortured the sensitive man. Did she wish to repel him in order not to abandon her father? Had that been only pleased astonishment which he had taken for affection of the heart? These anxieties made his demeanor constrained and unequal, and the change in his frame of mind worked again upon Ilse.

She had joyfully opened the flower-bud of her soul to the rising light, but a drop of morning dew had fallen into it and the tender petals had closed again under the burden.

Ilse had acted as doctress to all the illnesses and wounds that happened on the estate; she had succeeded her mother in this honorable office; her fame in the district was not small, and it was not an unnecessary accomplishment, for Rossau did not possess even one regular practitioner. Ilse knew how to apply her simple remedies admirably; even her father and the inspectors submitted themselves obediently to her care. She had become so accustomed to the vocation of a Sister of Charity that it did not shock her maidenly feelings to sit by the sick-bed of a working man, and she looked without prudery at the wound which had been caused by the kick of a horse and the cut of a scythe. Now the loved one was near her with his wound, not even keeping his arm in a sling, and she was fearful lest the injury should become greater. How glad she would have been to see the place and to have bandaged it herself!—and in the morning, at breakfast, she entreated him, pointing to his arm: "Will you not, for our sakes, do something for it?"

The Professor, embarrassed, drew his arm back and replied, "It is too insignificant."

She felt hurt, and remained silent; but when he went to his room her anxiety became overpowering. She sent the charwoman, who was her trusty assistant in this art, with a commission to him, and enjoined her to enter with an air of decision and, overcoming any opposition of the gentleman, to examine the arm and report to her. When the honest woman said that she was sent by the young lady and that she must insist upon seeing the wound, the Professor, though hesitatingly, consented to show his arm; but when the messenger conveyed a doubtful report, and Ilse, who had been pacing restlessly up and down before the door, again ordered cold poultices through her deputy, the Professor would not apply them. He had good reason; for however painfully he felt the constraint that was imposed upon him in his intercourse with Ilse; yet he felt it would be insupportable entirely to lose sight of her and sit alone in his room with a basin of



water. His rejection of her good counsel, however, grieved Ilse still more; for she feared the consequences, and, besides, it pained her that he would not accede to her wishes. When, afterwards, she learnt that he had secretly sent to Rossau for a surgeon, tears came into her eyes, for she considered it as a slight. She knew the pernicious remedies of the drunken quack and she was sure that evil would result from it. She struggled with herself until evening; at last, anxiety for her beloved overcame all considerations, and when he was sitting with the children in the arbor, she, with anguish of heart and downcast eyes, thus entreated him: "This stranger will occasion you greater pain. I pray you, let me see the wound."

The Professor, alarmed at this prospect which threatened to upset all the self-control which he had attained by laborious struggling, answered, as Ilse fancied, in a harsh tone—but, in truth, he was only a little hoarse through inward emotion—"I thank you, but I cannot allow that."

Ilse then caught hold of her brother and sister who had been in the hands of the gypsies, placed them before him, and exclaimed eagerly: "Do you beseech him, if he will not listen to me."

This little scene was so moving to the Professor and Ilse looked, in her excitement, so irresistibly lovely, that his composure was overpowered; and, in order to remain faithful to the father, he rose and went rapidly out of the garden.

Ilse pressed her hands convulsively together and gazed wildly before her. All had been a dream; the hope she had entertained in a happy hour that he loved her had been a delusion and she had revealed her heart to him and her warm feelings had appeared to him as the bold forwardness of a stranger. She was in his eyes an awkward country girl, deficient in the refined feelings of the city, who had got something into her foolish head because he had sometimes spoken to her kindly. She rushed into her room; there she sank down before her couch and her whole frame shook with convulsive sobs.

She was not visible for the rest of the evening. The following day she met the loved one proudly and coldly, said no more than was necessary and struggled secretly with tears and endless sorrow.

All had been arranged for a refined and decorous wooing; but when two human beings love each other they ought to tell each other so frankly and simply without any previous arrangement, and, indeed—without reserve.

The father had started on his journey; he gave as an excuse some business which he meant to transact on the road. The day following his powerful form and anxious countenance might be seen in the streets of the University town. Gabriel was much astonished when a

gigantic man, taller than his old friend the sergeant-major of the cuirassiers, rang at the door and brought a letter from his master, in which Gabriel was ordered to place himself and the lodging at the disposal of the gentleman. The stranger walked through the rooms, sat down at the Professor's writing-table and began a cross-questioning conversation with Gabriel, the tenor of which the servant could not understand. The stranger also greeted Herr Hummel, then went to the University, stopped the students in the street and made inquiries of them; had a conference with the lawyer; visited a merchant with whom he had had dealings in corn; was conducted by Gabriel to the Professor's tailor, there to order a coat, and Gabriel had to wait long at the door before the gossiping tailor would let the stranger go. He also went to Herr Hahn to buy a straw hat; and in the evening the tall figure might be seen uncomfortably bent under the Chinese temple, sitting by Herr Hahn, with a flask of wine. It was a poor father anxiously seeking from indifferent people intelligence which should determine whether he should give his beloved child into the arms of a stranger. What he learnt was even more favorable than he expected. He now discovered what Frau Rollmaus had long known, that he whom he had received into his home was, according to the opinion of others, no common man.

When, on returning home the evening of the following day, he reached the first houses of Rossau, he saw a figure hastening towards him. It was the Professor, who, in impatient expectation, had come to meet him and now hastened up to the carriage with disturbed countenance. The proprietor sprang from his seat and said gently to the Professor:

"Remain with us, and may Heaven give you every blessing."

As the two men walked up the foot-path together, the proprietor continued, with a sudden flash of good humor:

"You have compelled me, dear Professor, to act as a spy about your dwelling-place. I have learnt that you lead a quiet life, and that you pay your bills punctually. Your servant speaks reverentially of you, and you stand high in the opinion of your neighbors; in the city you are spoken of as a distinguished man, and what you have said of yourself is in all respects confirmed. Your lodgings are very handsome, the kitchen is too small, and your storeroom is smaller than one of our cupboards. From your windows you have at least some view of the country."

Beyond this not a word was spoken concerning the object of the journey, but the Professor listened hopefully to the other observations of the proprietor, how opulent were the citizens, and how brilliant the shops, also of the height of the houses in the market-place, the throngs of people in the streets, and of the pigeons, which, according to old custom, were kept by the town



council, and boldly hopped about like officials among the carriages and the human beings.

It was early morning, and again the first rays of the sun warmed the earth. After a sleepless night, Ilse hastened through the garden to the little bath-house which her father had built among the reeds and bushes. There she bathed her white limbs in the water, dressed herself quickly and ascended the path which passed by the grotto to the top of the hill, seeking the rays of the sun. As she knew that the cool night air still lay in the lower ground, she climbed still higher, where the hill declined steeply towards the grotto down into the valley. There she seated herself on the declivity amongst the copse, and far from every human eye, drying her hair in the sun's rays and arranging her attire.

She gazed upon her father's house where she supposed the friend still lay slumbering, and looked down before her on the stone roof of the grotto, and on the large tuft of the willow rose, with the white wool of its seed bursting from the pod. She supported her head on her hand, and thought of last evening. How little he had spoken, and her father had scarcely mentioned his journey. But whatever anxious cares passed through her mind, her spirits had been refreshed by the sparkling water, and now the morning cast its mild light over her heart.

There sat the child of the house. She wrung the water out of her hair and rested her white feet on the moss. Near her the bees hummed over the wild thyme, and one little worker circled threateningly round her feet. Ilse moved, and pushed one of her shoes; the shoe slid down, then turned over and went bounding over moss and stone, till it leapt by the willow rose and disappeared in the depth. She put on the fellow of the fugitive and hastened along the path to the grotto; turning round the corner of the rock she stepped back startled, for in front of the grotto stood the Professor, thoughtfully contemplating the embroidered arabesques of the shoe. The sensitive man was scarcely less startled than Ilse at this sudden encounter. He also had been impelled to go out into the early morning, to the spot where first the heart of the maiden had revealed itself to him; he had seated himself on a stone at the entrance, and leant his head against the rock in deep and sorrowful thought. Then he heard a soft rustling, and, amidst gravel and sand, a little masterwork of art fell close to his feet. He hastened forward, for he guessed at once to whom the bounding shoe belonged. Now he saw the loved one standing before him, in a light morning dress, enveloped in her long blond hair, resembling a water fairy or a mountain nymph.

"It is my shoe," said Ilse, with embarrassment, concealing her foot.

"I know it," said the man of learning, equally embarrassed, pushing the shoe respectfully to the border

of her dress. The shoe was quickly slipped on, but the short glimpse of the white foot suddenly gave the Professor heroic courage, such as he had not had for the last few days.

"I will not move from this spot," he cried, resolutely.

Ilse drew back into the grotto and gathered her hair into the net she held in her hand. The Professor stood at the entrance of the holy place; near him hung the long shoots of the blackberry, the bees hummed over the wild thyme, and his heart beat. When Ilse, with blushing cheeks, stepped out of the grotto into the light of day, she heard her name uttered by a voice in deep emotion, she felt her hand pressed, an ardent look shot from those true eyes, sweet words fell from his lips, his arm clasped her, and she sank silently on his heart.

As the Professor himself had on another occasion explained, man sometimes forgets that his life rests on a compact with the overwhelming powers of nature, which, unawares, counteract the little lords of the earth; thus the like unexpected powers now controlled the Professor and Ilse. I know not what powers of nature sent the bees, or threw the shoe; was it the elves in whom Ilse did not believe; or was it one of the antique acquaintances of the Professor, the goat-footed Pan, who blew his reed pipes in the grotto?

The wooing had begun in a learned manner, but it had been brought to a conclusion without any wisdom. There were two large and pure hearts which now beat against each other, but to say all in one word, the fastidious Professor had at last wooed his bride when she had no stockings on.

#### CHAPTER XI.

##### SPITEHAHN.

Raven-black night brooded over the hostile houses; the world looked like a great coal-pit in which the lights had been extinguished. The wind howled through the trees of the park; a rustling of leaves and crackling of branches was heard. Nothing was to be seen but a monstrous black curtain that concealed the neighboring wood and a black tented roof which was spread over the houses. The streets of the city were empty: all who liked their beds had been long lying therein, and whoever possessed a nightcap had now pulled it over his ears. Every human sound was silenced, and the striking of the tower-clock was intercepted by the stormy winds, and each tone was driven hither and thither, so that no one could count the midnight hour; only round the house of Herr Hummel the yelping dogs pursued their wild career in the courtyard, undaunted by storm or darkness; and when the wind blew like a buglehorn between the houses, the pack barked sleep away from men by their horrible hue and cry.

"This night suits them well," thought Gabriel, in his room. "This is just the weather for them." At



last he slept, and dreamt that the two dogs opened the door of his room, placed themselves on two chairs before his bed and alternately snapped their pocket pistols at him.

As he was lying in this unquiet sleep, there was a knock at his door.

"Get up, Gabriel," called out the old porter from the factory; "a misfortune has happened."

"Through the dogs," exclaimed Gabriel, springing out of bed.

"Some one must have broken in," cried the man again, through the door; "the dogs are lying on the ground."

Gabriel, alarmed, put on his boots and hastened into the yard, which was dimly lighted by the dawn. There lay the two poor watch-dogs on the ground, with no other sign of life but helpless writhing. Gabriel ran to the warehouse, examined the door and windows, and then the house; every shutter was closed, and no sign of disturbance could be discovered. When he returned, Herr Hummel was standing before the prostrate dogs.

"Gabriel, a dastardly deed has been committed here. Something has been done to the dogs; let them both lie there; an investigation must take place. I will send for the police."

"Indeed?" answered Gabriel; "compassion should come first, then the police. Perhaps something may yet be done for the poor brutes."

He took the two animals, carried them to the light, and examined their condition.

"The black one is done for," he said, compassionately. "The red one has still some life."

"Go to the veterinary surgeon, Klaus," exclaimed Herr Hummel, "and ask him to do me the favor to get up at once; he shall be remunerated. This case must be put into the daily paper. I require satisfaction before the magistracy and town council.—Gabriel," he continued, in angry excitement, "they murder the dogs of citizens; it is a work of mean malice, but I am not the man to put up with such assassins. They shall be made an example of, Gabriel."

Meanwhile Gabriel stroked the fur of the red dog, which rolled its eyes wildly under its shaggy brow and stretched out its paws piteously.

At last the veterinary surgeon came. He found the whole family assembled in the court. Frau Hummel, still in her night-dress, brought him a cup of coffee, while drinking which he sympathized with them, and then began the examination. The verdict of the expert hinted at poisoning; the dissection showed that a little dumpling with arsenic had been eaten, and what still more vexed Herr Hummel, there were glass splinters besides. For the red one there was a doubtful prospect of recovery.

(To be continued.)

# The Open Court

PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRESIDENT. DR. PAUL CARUS, EDITOR.

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All communications should be addressed to

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CHICAGO, ILL.

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A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

NO. 32. (VOL. II.—6.)

CHICAGO, APRIL 5, 1888.

Three Dollars per Year.  
Single Copies, 10 cts.

## THE CONDITIONS OF LIFE.\*

BY W. PREYER.

Part I.

*Translated from the German by F. W. Morton.*

He who wishes to investigate a natural phenomenon seeks first to discover all the conditions which necessarily attend it, and of which the non-fulfillment of a single one suffices to bring the observed occurrence completely to a standstill.

If, after preliminary work, the physicist believes he has ascertained all the conditions of a motion, he adds to this analytic method the synthetic, in that with all the assistance of science and technics he artificially produces these conditions. If these were rightly and fully observed, the phenomenon must take place of necessity. If, however, the means for an artificial experiment are wanting, a prediction as to the event under consideration is made. The astronomer foretells with certainty an eclipse of the sun, and it takes place exactly, even to the second, at the time given—a proof that in this case all the conditions are known. The same is true of some chemical facts. The nature of water has been so accurately investigated that at any moment it can be artificially produced from its gaseous elements, hydrogen and oxygen.

But in these two cases, as in all where the conditions of a phenomenon can be fully produced, something still remains entirely unknown. Gravitation, which holds together the world's structure, is for the astronomer in its inmost essence a problem not yet solved. He deals with it only as with something definitely given when he predicts centuries ahead. The chemist, who artificially produces a well known chemical union by the conjunction of its constituent parts, proceeds in the same way. He operates with chemical affinity without having the least conception of its real nature. Attraction and affinity are only words to mask the ignorance of the investigator. Still these indistinct conceptions cannot be dispensed with; they are of the greatest service for an understanding of the world. They must remain until in the future, if ever, they are supplanted by clear perceptions.

The mystery which always attaches even to the best known natural phenomena and to the explanation of them, is nowhere felt in so striking a way as in the investigation of life.

In whatever way the physical principles are applied to the living, they are all too often of no service whatever. The manifestations of life, in spite of all attempts to understand them, offer more of the wonderful than of the comprehensible.

Even when we begin with the lowest living beings, we cannot succeed in ascertaining all the conditions of their existence. Take, for instance, those forms of life which consist merely of a tiny lump of tough slimy material. They breathe, nourish themselves, change their form, move from one place to another and multiply by division. They are without organs; on all sides of their body they are apparently the same; they are not animal, not plant, but merely living forms. To science they are a mystery. Their chemical composition is unknown; the cause of their motion not less. To this we must add that these beings know not a natural death. As soon as a certain age is reached they divide into two parts and continue to live double, then four-fold, then eight-fold, and so on till by lack of space and nourishment further division is prevented. Then the youngest generation is consumed by the animals of the sea. Death by reason of old age is therefore not possible for these beings, for in the bloom of life they divide themselves into twos and succumb only to violence.

Higher organisms, on the other hand, like man, finally reach a point of time when life becomes extinct. And this takes place even in the best of health, when they are careful in action and hardened in person, whether they live in the feasts of abundance or in catonic abstinence; and that, too, without our being able to assign for it a sufficient cause. The wearing out of the organs is just as incomprehensible in old age as in youth, in so far as they receive the same good nourishment for their support. As a matter of fact they no longer utilize this nourishment so completely, and that in all probability from a good reason, viz.: because in the course of a long life a great number of imperceptible losses have wrought their effects upon the organism. These, each one taken by itself, do not in a perceptible way work disadvantageously on the processes of restoring the worn-out tissue, but when taken together, they break the opposing strength of the body so that at last it succumbs on the slightest occasion.

Fundamentally, however, this is to be taken only as a supposition. The real cause of natural death is un-



known, and the certainty which stamps mortality upon every living thing is purely inductive. Because it has never been observed that a living body has passed a certain age, the conclusion is rightly drawn that it can never happen that a living being will not die or its individual existence find no end.

Thus, even in its first steps, the investigation of life meets an enigma. It cannot discover why, in the natural course of events, death necessarily inheres in every organism after a certain time.

If we start, therefore, simply from the standpoint of the experimental physicist and regard life like any other natural process, the question as to the conditions which must necessarily be fulfilled, that this process may take place, cannot fully be answered. For if all the conditions of life, with exception, were known, the nature of death would also be known, so far, at least, as it takes place through the failure of any one of the conditions demanded.

Nevertheless, a complete answer to this question is of great interest, because it would afford a glimpse into the dependence of all life upon its environment. Those circumstances which have heretofore been known as the general conditions of life, bear essentially, therefore, on an explanation of the conception of life. A comprehensive treatment of them, moreover, is afforded by their purely real contents.

By general conditions of life are to be understood only such as apply without exception to all living beings. We have to do, therefore, with discovering the circumstances which are not less indispensable to life for the tiny rotifer in the depths of the sea than for the condor which soars with strong wing over the highest peaks of the Cordilleras. We have to find what is indispensable to life alike for the wretched lichens growing on weathered rocks and for the palm unfolding itself in full beauty, for the microscopical yeast cell and for the scientist who observes it. All plants, all animals and men must have certain necessities of life in common, since they all live. Thus generally considered on account of great manifoldness of organized bodies, the number of conditions of life can only be small. Experiment alone teaches us to know them. Only by observation and experiment can they be acquired.

First, as many *uninjured* living beings as possible must be sought in their *natural* environment. We find even on a superficial observation that at a certain depth in the earth and at a certain height above the level of the sea no life can exist, that life is also diminished amid the ice at the poles and in the dry sands of the deserts.

Then *artificially changed* organisms must be considered in their *natural* environment. When, for example, some of the parts of an animal are skillfully removed life can often continue without change of en-

vironment. We ascertain in this way which organs are indispensable for the preservation of life and which are dispensable.

Incomparably richer in results than this sort of investigation is the *artificial changing* of living beings in connection with a simultaneous *change of environment*. If a plant grows up from the seed in cold and darkness so that it is not green, and is then exposed to light of a single color, we have an anomalous organism in an anomalous environment, and can determine what sorts of light permit and necessitate the supplementary formation of green on the leaf.

Not less important for the question under consideration are, finally, those experiments by which *uninjured* organisms become displaced in a *changed* environment. If a green plant be brought into a space filled with pure blue light it dies. For the maintenance of its health, therefore, other constituents of the daylight than blue are demanded. To determine the conditions of life we must regard as of especial importance such changes of natural surrounding as produce a withdrawal of some one material which stands in intimate relation with the living organism. If, still to cling to our example, all iron be withdrawn from the nourishment of green plants—and that, too, if possible, without other change of environment—a green-sickness takes place; and if care be not soon taken for a renewal of the supply life becomes extinct. Iron, therefore, must be regarded as a necessity of life so long as no other element closely related to iron can be proven to take its place without fatal results. For manganese and nickel this proof is furnished. Therefore, with a high degree of probability we may assert that the presence of iron in the food is a life-necessity for green plants.

The *general* conditions of life, which have been acquired by this four-fold method of investigation, naturally fall into two great groups—the *outer* and the *inner*. The one has reference to the surroundings of the living object; the other has to do with the formation of the organism which is necessary for its conservation—its chemical composition and its anatomical structure.

Further, both the outer and the inner conditions of life are in part *mediate* or *indirect* and in part *immediate* or *direct*. We have to determine what suffices to prolong mere life for a period, i. e. what is directly demanded by it, and what is necessary to maintain full health or normal life, which is characterized thereby, so that all functions reach their complete unfolding.

Now, the *indirect external conditions* necessary for this are so complicated that even now they can neither be reviewed nor investigated so as to determine wherein their significance really lies. One such condition, however, is the association of several, viz.: society.

Experience teaches us that a living thing will thrive only where other living things exist. Solitude is en-



tirely foreign to the realm of animated nature. All animated existence is mutually dependent; and if the temporary repose of an individual from the struggle for existence makes a passing isolation acceptable to him, still there is no living body that can permanently endure absolute solitude. But few know the indescribably desolate feeling of abandonment which overpowers the stranger, thirsting for knowledge, in an island, or amid great lava fields stretching over hundreds of square miles; with not so much as a voice in which he may forget himself such as even the glacial districts of the Alps pour down upon the unterrified hunter. No one for any length of time loves this gloomy silence, this death-like stillness of nature.

Although social life occasions great injuries to personal welfare, since each man in order to further his own interests comes into collision with others, still a society of many people, and above all the family, produces the greatest advantages for personal prosperity. For when many live together not only will the existing needs of life be more easily satisfied, and that, too, fully and regularly, but there arise through society new suggestions or desires which impart a new charm to life. Generally, so important are these advantages, made possible by society, for the furtherance of life in any of its phases, that society—and this holds good for all animated nature—becomes the most important of the indirect external conditions of life. And it becomes this largely because it alone permits the development of all talents, and thus preserves spiritual and physical health, that is, normal life. Not only must the necessary demands, as for example, that for food, be satisfied; but for full perfection those numerous needs are required which are newly created by society for its gratification. And these are without limitation from without and yet are not immeasurable.

This abundant supply of all the necessities of life is called luxury. It is found in all nature and at all stages of development of living beings, but never abundantly. That it should be desired is natural. Many condemn it, however, but chiefly for this reason: That the right measure of enjoyment is hard to find. Only so far as it takes into consideration the well-being of one man and that of his equally deserving fellow-beings is luxury harmless, permissible, right, advantageous, wholesome and necessary for normal life. So often as it degenerates it not only loses its advantages, but it becomes harmful. It then no longer enhances the capacity for the highest effort. In order to avoid this harmful degeneration moderation is necessary, for without this mankind cannot be kept from want or sickness. In itself undue self-denial, avarice—that which is called the non-fulfillment of the indirect conditions of life—is still more contrary to nature than the greatest luxury. The satisfaction arising from undue self-denial or forced

overstrained self-conquest is exceedingly slight. Besides, luxury, which as a rule could not exist but for society, is of the greatest advantage to the individual who rejoices in it without being degenerated by it; it is even more advantageous to society in general.

In the circles of the British nobility, where the greatest luxury prevails, longevity, good health and intelligence have almost become hereditary. Moreover, we speak here of luxury in its widest sense. There is physical luxury, human, animal, and plant luxury. Many animals kill more than they can consume, many collect so great a store that they are not able to use it. The most striking example of luxury in the animal world is afforded by the house-building birds of Australia, which, in addition to their nests, build shapely social houses and there give themselves up to all sorts of amusements. They build their nests on trees and their social houses on the level ground. The latter are adorned with all sorts of bright objects and flowers. These remarkable birds play with various colored stones and shells, while they frequently change the decorations of their houses. They caress and tease one another and entertain themselves actively in their exclusive clubs. Even in the vegetable kingdom such a luxurious life may easily be distinguished from those conditions of life in which everything needed, but nothing more than this, is at hand. Not merely by means of better soil and more copious light, nor by means of good nourishment and care, do many plants grow more luxuriantly. On the contrary, their thrift depends, in a large measure, upon the society in which they grow. The leaves in the primeval tropical forests never attain their strongest development unless the most powerful trees serve them. Such vine-growths really lead a luxurious life. They have in every respect more than they need, just like many a parasite of the animal kingdom.

*(To be continued.)*

#### KARL THEODOR BAYRHOFER AND HIS SYSTEM OF "NATURALISTIC MONISM."

BY EDMUND MONTGOMERY.

Part II.

We have seen that Bayrhofer, like Feuerbach and Strauss, turned away from the sterile and shadowy haunts of the purely conceptual world, and like these, his illustrious fellow dissenters of the left wing, he devoted himself all the more intently to the contemplation of the luxuriantly vivid and replete presence of the perceptible universe.

This richly saturated world of perception is, however, by no means so immediately within palpable reach of philosophical thought, as it is of sensible experience. To our direct perception the universe seems indeed composed of a multitude of diversely constituted bodies, extended in space and changing in time. And this material universe it is which, in the unsophisti-



cated estimate of us all, is carrying with it the entire wealth of Being. For Mind,—the only other mode of existence, of which we are cognizant, besides Matter, is evidently only an inner affection of some peculiarly organized bodies, forming part of this same all-comprising material universe. To plain common-sense it is the clearest possible fact, that the world of real Being is the same world we are from day to day actually perceiving.

Yet as soon as we set about scrutinizing somewhat more closely the relation of this perceptible world to our individual perception of it, perplexities arise that are strong enough essentially to disturb the intuitive assurance of the common-sense view. It requires, indeed, but little reflection to become positively aware that the material universe is in verity realized by us solely in the medium of our own consciousness; which consciousness is undeniably of mental and not of material consistency. Wherefrom irrefragably follows, that we know the material universe only mediately through mental representation.

Here, then, at once, inevitably, the central problem of philosophy offers itself for solution. It can nowise be ignored or eluded by whoever desires to recognize the true nature of Reality. And what thoughtful human creature does not crave to learn the secret of his own inmost nature, and how such nature is in truth connected with that abiding universal essence of Being, which underlies the ever-shifting phantasmagoria of sense-apparent manifestations?

Can anyone wonder that, struck with indefeasible longing for insight beyond the phenomenal play of individual perception, so many eager lives have spent the ardor of their vital spark in the endeavor to lay bare the solemn enigma of real Being? In what conceivable relation do those individual perceptions of ours stand to the actual world represented by them? How far do these mere mental figurations justify the framing of conceptions concerning the absolute nature of that, which from time to time is thus perceptively figured, but which must surely be itself steadfastly abiding in permanent existence, whether perceived by us or not? And in this soul-stirring solemnity of externally revealed and internally concealed existence, of what import is the little rôle we ourselves are playing? What is the true meaning of the open secret of Thought, Life and Being?

Undaunted by any failure of predecessors, they, whose gaze has penetrated beyond the "illusive veil of Maja," continue from century to century of human doom their eager questionings in search of veritable Reality. And to this exotic sect of philosophical ponderers, wrapped in wondering awe and super-individual hope, Bayrhafer belonged with soul and body. Touched from early youth with the frenzy that begets the transcendental mood to think and live as faithful exponent of the ever-valid world of reason, and not as one of the

common herd of self-seeking time-servers, he undeviatingly steered his course to the end.

No mere dreamer he! When, after a brilliant career as philosophical teacher and political leader, he found himself ousted of the academic chair and the parliamentary rostrum, he abundantly proved the practical strength and value of his reason-bred convictions. His humanitarian creed then flowed out, not in sentimental lamentations, but in courage and force to do battle against all manner of adversity. For the sake of his own manhood, and the welfare of his young brood of aspirants to human worth, he cheerfully and energetically adapted himself to the imposed situation. With rare fortitude he relinquished his habitual idealistic occupation with thoughts and words, entering resolutely with axe and plow upon a most realistic struggle for existence.

Figure the man, who had been a German professor of philosophy, forty years old already, actually making a living for himself and family by manual labor on a Wisconsin farm, thirty-six years ago. Surely a memorable event this for whoever happens to know of what strangely awkward stuff German professors were made in those days, and not again did our professorial farmer lay down his agricultural implements to return to his beloved realm of philosophical thought, until his children had grown up to be worthy citizens of the ideal humanitarian commonwealth, foreshadowed in the fundamental principles that had given republican independence and democratic stability to this his adopted country.

The first philosophical paper he allowed himself to write appeared in the third and fourth volumes of Bergmann's *Philosophische Monatshefte* seventeen years after he had settled on his farm. It contains a criticism of Herbart's, Hegel's and Spencer's systems, but fully adopting the naturalistic evolution-hypothesis. A year later, 1871, he published, also in German, a concise exposition of his views in a pamphlet bearing the title: *Das Wesen des Universums und die Gesetze des Humanismus, dargestellt aus dem Standpunkte der Vernunft*. Then in *The Journal of Speculative Philosophy*, January and October, 1876, "The Idea of Matter" and "The Idea of Mind."

These are the essential writings pointed out by himself to the present writer as conveying his matured thought. They were written after his health had been much impaired by the many years of unaccustomed hard labor. It is no easy task clearly to realize his views from his brief and abstruse exposition of them. But we will try to give a correct idea of his monistic foundation of the universe; for there can be no doubt that the monistic world-conception will have to be based on a groundwork similarly constituted.

Bayrhafer, as stated before, was a firm believer in the fundamental unity and essential identity of the ma-



terial and the mental worlds. But he did not believe that thought or intelligence is itself veritable Being. On the contrary, he looked upon that entity, which is consciously revealed to us in material appearances, as the true essence of Reality. With Kant, and in opposition to Hegel, he most positively maintained that that which is causing our individual space-perception to be filled with the specific content we call matter, is itself real, sense-stimulating Being, subsisting outside and independently of this perception of ours; which perception is therefore not merely an ideal product of our own obscure and inadequate introspective conception of an absolute reality which is itself Thought.

But, unlike Kant, he further asserts that there exists an essential identity of nature between the phenomenal or ideal appearances within our perception and the non-phenomenal or real efficiencies that arouse them from outside. This assertion goes right to the heart of the philosophical problem. If he can prove its validity, he has indeed discovered the long-sought-for monistic solution for the apparent duality of mind and matter in the domain of all-comprising Being.

It is, of course, easy enough to establish identity between Thought and Being, when with our thorough-going Idealists we simply maintain that Thought is itself Being, and that the belief in the existence of something stimulating our sensibility from outside is a mere illusion. Easy also to establish a pseudo-monism, in which mind and matter are seemingly one, when with many of our scientific philosophers we quietly lodge the requisite modicum of mental capacities in the primordial material elements with which the monistic universe is then built up.

But it should be clear by this time:—on the idealistic side, that our compulsory percepts are indeed aroused by external powers, whose distinguishing characteristics they faithfully represent;—on the materialistic side, that what we perceive as the material universe is merely a sense-stimulated phenomenon within our own perception, whose component parts—however much subdivided and finally atomized in conception—cannot, themselves, be placed in objective existence as the true elements of real Being.

Bayrhafer is lucidly aware that it can be only by means of a reasoned analysis and explanation of the sense-revealed universe that we can ever hope of gaining insight into the veritable nature of Being. He tells us plainly that "speculative thinking is alone capable of understanding and interpreting the ultimate nature of things."

It will be instructive to find out why this must be so. For it is one thing to profess, in a general way, belief in Monism, and quite another thing positively to demonstrate how mind and matter have in truth a common origin in universal Being. A creed, which desires to be

scientific, ought to give strict account of the reasons which determine it to adopt its fundamental tenets. Naturalistic Monists who fancy that their assumption of the unity and identity of mind and matter in nature is a self-evident truth or a readily demonstrable fact, are strangely mistaken. Even if—with all too bold a sweep—mind be hypothetically identified with force, and force with matter, it will be found a rather puzzling task to explain, or only to conceive, the interaction and transition into one another of these various modes of Being. Idealistic Monists have here an immense advantage, so far as facility of conception is concerned. They can positively prove that we are immediately aware only of mental existence; that all we know of nature appears within our own mental medium and is there mentally conceived by us. From this undeniable state of things they draw the easy conclusion that Mind is the sole mode of Being.

But believing—as we naturalistic thinkers most positively do—in sense-stimulating powers, we have inevitably to use our speculative reason in order to attain knowledge regarding these extra-conscious powers; for how otherwise could we penetrate beyond the immediate evidence of our senses. If the perceptive representation within our individual consciousness is indeed our sole revelation of the great outside universe of Being, then, obviously, there can be framed a consistent hypothesis concerning the veritable nature of that, which thus vicariously appears within our consciousness, only by means of a rational interpretation of the mental effects it arouses in us. No mere unreasoned observation of these mental effects, with ever so correct a description of their perceptual content and behavior according to the natural-science method, can possibly yield information regarding the permanent and efficient powers, of whose transient modes of interaction the representative percepts are just as transient a set of outcomes.

It is significant, in this connection, that mathematical Physicists, following consistently their method of accurate measurement and comparison of space and time-phenomena, are more and more completely abandoning all attempts to postulate or imagine any kind of absolute reality underlying or causing these perceptual appearances. They assume in their calculations no atoms or forces to account for so-called material phenomena; but work merely with definitely ascertained velocities of definite parts of space-occupation, as interlinked with one another, in so far only as changes in their motion, and therewith position are concerned. These Physicists are, in fact, if they only knew it, out and out Psychologists, having for their object of investigation nothing but changes of specific *percepts* within individual space and time-perception. But as these percepts happen to be faithful representations of the distinguishing characteristics of the sense-affecting influences, the peculiarities of



their perceptual motions turn out to be significant signs of peculiarities appertaining to the efficiencies of the interacting powers outside consciousness.

But can we ever gain any valid knowledge respecting the ultimate nature of that which stimulates our sensibility and arouses our percepts? Philosophers, who have realized the phenomenality of all perceptible occurrences within sense-revealed nature, have very generally denied the possibility of forming any conception whatever concerning the absolute nature of that which underlies the perceptual phenomena, and which consequently constitutes the veritable essence of Being. Whether with Kant this seemingly unrecognizable something be called the realm of Things-in-themselves, or with Spencer the Unknowable, the profession of nescience regarding its true nature is the characteristic mark of the philosophical Agnostic.

Bayrholder's chief effort is to overcome such Agnosticism. He seriously attempts to recognize the veritable nature of absolute Being, and gives good reasons why such nature should be cognizable. He argues that a separation and opposition of Being and Thought, Subject and Object, Percept and Thing, is merely an abstraction of consciousness, having no real validity. For all thinking occurs within Being; is indeed Being itself, exerting its own power of internal reflection or self-appearance. And such reflection is found to mirror not the subjective side only, but the entirety of Being, in which the objective side is always included. This argument is the argument of "Real-Idealism," and is in the strain of Schelling's thought. Bayrholder, from the standpoint of the Kantian relativity of knowledge adds, that a realizing subject, whose mental nature were so constituted as to be incommensurable with Reality, and not indeed wholly impregnated with it, would be simply an anti-natural monstrosity. Our perception and conception of Reality figures within a subjective focus nothing but Being itself in its various and variable forms; consequently a rational interpretation of such mental figuration must lead to a more and more complete recognition of absolute Being. Knowledge is, in fact, the self-revelation of such Being. And though progress toward complete truth is through one-sidedness, illusion and error, yet by dint of gradual rectification and amplification, we come to grasp more and more adequately that absolute truth, which fully reflects the veritable nature of All-Being. From the persistent matrix of perceptible phenomena has emanated our entire consciousness, and therewith our conception of the universe with all its present inconsistencies of mental apprehension. Surely, then, the same all-evolving matrix will have also power to evolve a solution of these inconsistencies.

Meanwhile Bayrholder thinks it incumbent on us to try to frame as consistent an hypothesis of the veritable

nature of Being as lies in our present power. This is what he attempts. And this is what has likewise been attempted, on similar lines of tradition and thought, by a far more renowned contemporaneous philosopher, who was fortunate enough to be allowed peacefully to pursue his thinking and teaching throughout a long and most successful career.

But how different the final conclusions arrived at by the conservative Lotze from those attained by our intrepid revolutionist. Lotze, building likewise on Kant's and Herbart's fundamental ideas, manages plausibly to deduce from his naturalistic Monadology the existence of a personal Deity and the confident belief in personal immortality. Bayrholder, following boldly the lead of a rationalistic interpretation of sense-revealed nature, is, on the contrary, unhesitatingly certain of the non-existence of a personal Deity, and the impossibility of personal immortality. Both thinkers believe the world and ourselves to be composed of monads, but Lotze's Monadology is imbued with a monarchical spirit; Bayrholder's is uncompromisingly democratic.

It would be well worth while carefully to compare the two systems, but this interesting task lies beyond our present purpose, which is to give an idea of Bayrholder's Naturalistic Monism, in which the interaction of equal and elementary Monads is made to give rise alike to material and to mental phenomena. We will now see how this is brought about.

#### THE SCHOLAR AS REFORMER.

BY MORRISON I. SWIFT.

If we disregard, as we must, the opinions of that great body of single-thoughted practical men whose education belongs to a day that the world cannot repeat, we do not underestimate the difficulties that their firmly held dogmas place in the path of reform. The problem before those who hope for better things is to change a society in which the refined vices of industrial self-interest are considered virtues, and which the best brains of the trading sphere are enlisted to amplify. It is not merely a dead weight of stolid conservatism that is to be lifted, although this is there; it is the vigorously working forces of triumphant selfishness and injustice that are to be met and dissipated before a better time can come. On the side of obstruction and retardation, in heavy force, are the conventionally moral men who extol the present working principles of society at the expense of those reforms that would bring the conception of human development into industrial relations. What forces then are available for reform?

It is certain that the high results of the moral revolution that we desire are not to be accomplished by men who have not themselves abandoned the lower ground occupied by prosperous humanity. Those who would help most in this supreme work must have severed



themselves from merely personal ends and inferior hopes. They must have gone down into the depths of life and of being, and gathered thence infinite inspiration and faith in the possibilities of man. The demand of the moment is in its fullest import for characters of this kind. They must care for no human opinion; they must be simple lovers of truth, ready to part with everything besides.

There are two classes that approach this type. Of one of these, the "masses," we shall speak hereafter. By the other we mean the educated men of the country.

The broad scholar of to-day must have imbibed something of the historic spirit. It is impossible for him to believe in the permanence of institutions in the sense that practical, unread men suppose them to be permanent. He sees that they have become what they are to fit human needs, and that as these needs change and enlarge the institutions must likewise be modified. He perceives, moreover, that this alteration has always been, and must ever be, along the line of the moral and ideal. For the moral and ideal are the same. The ideal is the material out of which the future real is to be elaborated. This passage from the momentarily real to the more moral or ideal is the essence of the life of individual and of humanity. One who does not recognize this and regard himself as a part of the race-process has not yet learned to live and does not know the depth of the meaning of duty. As man only lives successfully when he observes all the conditions that past development has imposed upon him, so he only lives fully when his life is ordered by the largest conception of the future that he can form. This, without postponement, is future life. And it is nothing more than the unchaining of the now. It is the crowding of the future, extended, temporal reality into the present; the refusal to sacrifice this future to a limited and false conception of the nature of the present and of life itself. For it is not the transportation of man out of himself into a nebulous and dreamed of unreality, the abandonment of his natural and sustaining environment, it is the enlarging of man to his own proper stature. Life is seldom conceived in its real breadth, and for this reason few gather to themselves its full richness. It will not be so conceived until the individual comprehends himself as the bearer of the race essence and as containing, in no merely figurative way, the temporal hereafter. This is man in his reality. Whoever lives for the mere present lives not for the real present, nor for more than a fragment of himself. It is the mission of the scholar to reveal this larger and encompassing world of his saner being, which is there to fructify and complete the lesser world to which he has arbitrarily confined himself.

But we trust the scholar for other reasons. The magic of rising above the hopes and fears of a world that is the product of a transcended past, is his birth-

right. If the prizes of human society are in the hands of practical, unhistoric men, they count for little with him; for they are prizes only in a world that denies life. It is base to live for these prizes as men commonly do, but it would be infinitely baser for one who has discerned the higher significance of living to lend himself to their pursuit. The vocation of the scholar is absolute and unswerving independence, and independence supremely of whatever survives from the past that is detrimental to human progress. And if he considers his momentary comfort in comparison with this stellar liberty, he, too, belongs to the past and is not worthy of his calling. We do not say that there are not such men, and perhaps many of them. But we say that such men are not worthy of their calling if they do not revolt against their own untruthfulness to truth. We do not doubt there are many scholars whose sole purpose in the pursuit of learning is a livelihood, or social position, or reputation, just as there are now many ministers with no higher object than these. But we expect nothing from such men. They are powerless to help in times like these.

Society has been wont to class certain well-defined and limited duties under the stereotyped idea of each profession. It has then said, "Let the shoemaker stick to his last," and frowned at innovation. Each brotherhood has its written or unwritten code, and the penalty of deviating is ostracism and sequestration. The physician may heal the poor without fees, but where is the medical man who is renovating the ideas of his community so as to avert sickness? The lawyer makes and nurses cases for his own profit, instead of preventing and adjusting them and thereby saving the client from sure depletion. The clergymen "sticks to the Bible" and "preaches Christ and Him Crucified," while the vast complex of information and instruction that should come through the modern pulpit is left untouched by him. The pulpit is sacred to antiquated doctrinism. The professional scholar, likewise, has an idea of his function conceived in medieval days and ossified in their inspiring atmosphere, and idolized by medievalists ever since. The professional scholar is bookish *par excellence*. He has the aroma of a seat of learning and thinks that the ways in which an intellectual man should walk have been discovered. The sunlight and opposing opinions dismay him. The pale cheek of a student is his highest consolation. "I do not want a student to injure his health," said one of these sages, "but I want him to come as near to it as he can." In his surrender to the cult of sanctioned learning he is as livid and orthodox as the highly-bred Calvinist is stark and steadfast to his fancies. This type has by natural evolution produced what, for distinction from the specific worker, who remains a congruous and approvable man, may be termed the unhumanized specialist. He must be in earnest only about the infinitesimal particular globe



in which his mind is accustomed to spin. He shall sedulously guard himself from any other interest, lest his mental top lose a revolution on the axis of its specialty. Woe, then, to him, for all that he esteems considerable has suffered a calamity. An irrevocable opportunity is gone.

Against these doctrinaires of preaching, and medicine, and learning or research, who rule in modern councils by the divine right of the insensate apathy of their companions in self-prolonged minority, the true scholar stands out. He is conscious that his class is not doing its legitimate work in the world because of its creed. As in religion, formalism has expelled substance. And this drags the scholar down to the common level. Individualism infects him with the rest. He acquiesces. Persevering adherence to the exceptional insights granted him, and duty to know and practise the laws of conduct declared in these clearer visions, he evades.

Hence scholars have not yet arrived at their true functions except in daring and unusual instances. They have not sought a profound comprehension of the meaning of life in its complexity and breadth, as every man and, most of all, every educator should. The conception of the education of humanity, of race-building, they have not cared to grasp. But these ideas are at length here, and it is required of each worker to relate himself anew and more vitally than before to the larger social unity. The movement of the world now forces the scholar to accept these issues. To him first the breath of a higher life should come. Those who are permeated by this new spirit are weary of the moral pause that has fallen upon the world. It rests with high-minded and independent characters, those of historic insight and original strength, to lift this blight and to bring to sensible existence a practical morality that corresponds to the highest conception of virtue that we have yet developed. It is for such men to guide the masses and to unfold instead of repressing them. This is the unrivaled opportunity of the present time. The problem is the application of all modern knowledge and energy to race expansion. The claim rests upon this generation to renounce its hoary contentment with conventional methods of doing and being good and to forge measures that are adequate to modern needs and shall supply a foundation for future human construction.

In fine, the scholar and such as feel with him the premonition of a new life are called upon to set themselves in complete and determined opposition to the abuses that prevail universally, to put the seal of condemnation upon ideas that even good men affectionately tolerate, to clear away the mystifying creeds and dogmas that hinder men of the highest purposes and lives from harmony with the organized good, to establish once and forever the truth that all men are born to live

moral and beautiful and expanding lives in whatever sphere they may labor, and that the paramount duty of the enlightened is to forswear class preference and privilege and enter the internecine struggle to lift up the whole human race.

These are large objects, but the time has arrived when they can no longer be postponed, and the scholar must accept them as the companion duty of his exceptional opportunities.

#### INFINITUDE AND ETERNITY.

Mr. L. T. Ives, in his letter on page 872 of *THE OPEN COURT*, refers to my essay of January 5th, entitled "The Unknowable." He sees no objection to considering abstracts or generalizations as *chiffres* for economizing thought; but he asks: "Does this class of thinking serve our purpose also with the word infinite?"

Yes, it does. But infinity does not mean, as Mr. Ives suggests, "the abstract of all finities;" it is the abstract of all infinities, i. e., it is a *chiffre* for anything which we think of without limits. An infinite decimal (say a recurring decimal) is a decimal fraction which we think of without a limit, for instance  $\frac{1}{3} = 0.333 \dots$  ad infinitum. Infinity is never a real thing. In order to use an infinite magnitude of any kind we must stop short when the error becomes indifferent. The decimal  $0.333 \dots$  is only equal to  $\frac{1}{3}$  when we continue with the threees after the decimal point ad infinitum, which is practically impossible as well as unnecessary. The infinite is therefore a name for a process without a definite limit which can be continued as long as one pleases and is only approximately finished if cut short; and infinitude is a generalization and a *chiffre* for all the infinities.

So far Mr. Ives agrees with me, I believe, and he states correctly that it is one and the same thing whether we measure with inches or sidereal distances (as are, e. g., the "light years," i. e., the distance which a ray of light travels in one year). Mr. Ives' issue is the infinitude of space, and it is this which he proposes as the problem, "about which it cannot truly be said 'there is no mystery.'"

And yet the infinitude of space is the same infinitude as any other mathematical infinitude. The problem of which Mr. Ives speaks has been solved by no less a one than the great sage of Königsberg, by Emanuel Kant.

It is a misapprehension to think that space is a reality, some object, something outside of us which exists as material things exist. Kant proved that objective space is an absurdity; it does not exist at all. He says in his "Transcendental Aesthetics" [Critique of Pure Reason, translated by J. M. D. Meiklejohn, page 42.]: "If we regard space and time as properties, which must be found in objects as things in themselves, as *sine quibus non* of the possibility of their existence, and reflect on the absurdities in which we then find ourselves involved,



inasmuch as we are compelled to admit the existence of two infinite things, which are, nevertheless, not substances nor anything really inhering in substances. Nay, to admit that they are the necessary conditions of the existence of all things, and moreover, that they must continue to exist, although all existing things were annihilated—we cannot blame the good Berkeley for degrading bodies to mere illusory appearances. Nay, even our own existence, which would, in this case, depend upon the self-existent reality of such a mere nonentity as time, would necessarily be changed with it into mere appearance—an absurdity which no one has as yet been guilty of."

Whatever are the points of difference between Kant's system and my own views, I agree with him when he declares that space is ideal, not real. Space is a conception of ours and nothing more; it is just as much a generalization as any other abstract. Space is abstracted from reality. We abstract extension and omit all material.

Space in and by itself—apart from reality—does not exist, save in our imagination. Hegel defines space as *Das Neben-ein-ander der Dinge*. We call it the possible direction of motion. If space is any possible direction of a point or a particle of matter, there can be no doubt as to the infinitude of space, for the possibility of motion is infinite in every direction. This fact is thus self-evident from the definition of space.

If we think of space as a real entity, it is the greatest mystery—a mystery which, we must confess, can never be solved. If with Kant we recognize that space is *ideal*, that it is an abstract, a *chiffre* for economizing thought, everything is clear, and there is just as little mystery in the infinitude of space as in the infinitude of a recurring decimal like 0.333. . . .

Accordingly, we may say, with Mr. Ives, that "space is the\* generalization of extension." But if he says "space is without limit," he should bear in mind that it means "the possibility of extending the possibility of motion in every direction is without a limit."

The only correct usage of the word infinite is that of the mathematical term. As a poetic license, however, we use it also in the sense of immeasurable. We speak of the infinite ocean and the interminable depth of the sea, although both are very definite and even not immeasurable. So also the "infinite" world, the universe is a definite reality. Certainly it is in its totality immeasurable; but we recognize that its energy as well as its matter of reality can neither increase nor decrease, a fact which is now indorsed by science and generally styled the law of conservation of matter and energy.

As of space, the same thing holds good of time. Time is also an abstract, or, as Kant says, it is ideal; time does not exist by itself. Schopenhauer is right in

saying that neither past nor future exist; the only real time is the present and it *is* always.

Time is a generalization or abstract of existence in regard to its continuance or possible change, but without reference to anything else, be it matter or form. Hegel calls it "*Das Nach-ein-ander der Dinge*." This can lead to a misconception if "*Dinge*" are taken in their totality as the world. The material things in their totality *are* always; they exist not one after another, but are simultaneous and are permanent. To express it in two words: *Reality is*, which *is* includes that it has existed and it is going to exist. Hegel's definition is correct in so far as things are considered as changeable forms. It is motion which changes things either in their mutual relation, or their forms. Time, accordingly, can only be measured by motion; and, indeed, time is the measure of motion and nothing more. If time is conceived as an objectively existing entity, we will soon find out that it is inconceivable and full of self-contradiction. Kant claims that objective time (just as much as objective space) is an absurdity.

Past and Future are still more complicated abstracts than the present. When conceiving them as objective existences, we are driven to statements which are inconceivable and impossible. They are without limit. Infinitude in time is called eternity. Eternity, conceived as a real thing, is a self-contradiction. If we require for some purpose the fraction  $\frac{1}{2}$  in the form of a decimal, we change it into 0.333. . . . This decimal fraction is, as all agree, a *chiffre* for a process of taking three units in every ten, and this process can never be finished. Accordingly, 0.3333. . . . is never equal to  $\frac{1}{2}$ ; we may carry the calculation to five, to ten, to a hundred or more decimals; it may be more than accurate for our special purpose, but 0.333. . . . never will be equal to  $\frac{1}{2}$ . If I would require to have an infinite decimal as is 0.3333. . . . in full, I would be made to understand that this demand is absurd and its realization impossible. We cannot finish it and cannot even conceive an infinite decimal finished. But we use where it is wanted a certain *chiffre* for indicating or symbolizing it.

The eternities of the Past as well as the Future are exactly such *chiffres*. And the eternity of the past, comprehending in one conception all the changes that Reality or the present existence suffered before having a form as at present, and the eternity of the future, meaning an indefinite and infinite possibility of change of states of things to come, both are fundamentally an eternity of the present time, which means that time must be conceived as limitless. Reality existed always and will exist always, and the possibility of change cannot be exhausted—or at least we can imagine it to be inexhaustible.

Time is an abstract from Reality, which by all its changes remains. Past, Present and Future are ab-

\*By the way, I say space is the (not a) generalization of extension.



stracts of the states of Reality, whether they are, or have been, or are going to be.

This form of expression is most correct for our present purpose, as it defines both past as well as future in the present tenses "they have" and "they are going to."

Time and space, infinitude and eternity are no mysteries unless we make them such by wrongly attributing to them a reality which they do not possess.

The nations of old worshiped Space and Time, Infinitude and Eternity, and we now smile and call them pagans. It is a paganism superior to fetishism, as its idol is woven out of the most delicate woof which can be obtained, viz.: the ideas of the thinker. But there is no essential difference; it is a difference of degree.

Kronos and his colleagues belong to the past, but the worship of eternity and infinitude still obtains among our present generation, and will continue to be an object of idolatry until we understand that infinitude and eternity are own creations.

P. C.

#### SUB SPECIE ÆTERNITATIS.\*

BY WM. SCHUYLER.

The perfumed blossoms hung upon the bough—

Like lovely Innocence it seemed to me

Of little worth, save that within it now

The germ of good or evil fruit might be.

Then from this selfsame blossom there did spring

First, unripe fruit which foul disease could breed;

Then grew life-giving, slowly ripening;

And then decayed—then sprang the fruitful seed.

So with our finite actions—all deeds done

For self alone like unripe fruit must be,

And when our good works through unreason run

Into excess, decaying fruit we see.

But when through love our deeds not only may

Bring good to self, but also to all men,

Then are they fully ripe—yet from decay,

Evil itself,—good seed may grow again.

From the same stem with evil grows the good;

For all things God-proceeding good must be

When in completeness they are understood

Under the full form of Eternity.

### CORRESPONDENCE.

#### AN INQUIRY ABOUT THE INFINITUDE OF SPACE.

In your article of January 5th, entitled "The Unknowable," you dispose so easily of problems that I had always felt to be perplexing, that it awakens in me the hope that you will give us further word on this subject, dealing more specifically with the questions involved.

Your article also prompts me to ask you one or two questions, which I trust you will excuse, and, if intelligibly presented, will answer.

\*Spinoza.

You say of matter "it is a *chiffre* or symbol," a "generalization"—Yes, I see no objection to that—matter is but a generalization of all forms of matter, and as such "no mystery about it." The word is, as you say, "a symbol for economizing thought"—So also in regard to all words expressing abstract ideas. It is but a mental process whereby we gather to a unit all concrete cases. There is no sin outside of sinners sinning, no love outside of lovers loving, but does this class of thinking serve our purpose also with the word infinite? You say yes, it too, is but a symbol and "no mystery about it." You would, I suppose, claim that infinity means simply the abstract of all finities just as one million is a generalized statement of that number of units. This is altogether thinkable, but to my mind, infinity means that which no adding of units will make, and to speak of "counting" to, or "wandering" to, infinity is like saying: "I started to walk upon a road that has no end, and I walked so long and so fast that I at last got to the end of it." When the word infinity is used, a something is expressed that cannot be made or reached by addition. In this respect it is certainly unlike anything with which we have had experience. The immense distances dealt with in astronomy, are, by simply enlarging our unit of measurement, as readily disposed of as measuring thirty-six inches of ribbon, and by a similar process. But when we come to something which no enlargement of our unit will affect, something to which the diameter of our sidereal system would be as a unit of measurement no better than the diameter of a sand grain, then surely we have reached a something not a symbol of anything save itself, and about which it cannot truly be said, "there is no mystery." Does not infinite space present this problem? You say, "beyond nature is empty non-existence." This empty non-existence is infinite room for existence, infinite space—space without limit. We say "without limit" because we cannot conceive it as having limit. The space we know here is not empty, so, judging from experience, there is reason to believe infinite space not empty—and the problem that presents itself to our thought is infinite fullness rather than infinite emptiness. But in either case the infinite element remains the same; and this is the one point to which I have wished to call your attention.

We may say the word space is but a generalization of all extension; but if we say "space is without limit," we affirm a fact about it which is not a generalization. We say of this affirmation, it is true, not because we comprehend it, but because, while realizing that we do not comprehend it, we yet feel that it must be, for every alternative thought on the subject, in its last analysis, throws us back on this one.

If you should ask for proof, I admit it is wanting; but certainly this is the thought the word infinite implies—not a generalization or symbol, but a something of which we have no proof, yet feel must be.

Yours truly,

L. T. IVES.

#### A READER OF THREE-SCORE-AND-TEN BRIEFLY DEFINES HIS MONISM.

To the Editor: MORRIS, GRUNDY Co., March 10, 1888.

I have a two-fold object in the present address:

One is the expression of appreciative pleasure felt in reading your interpretation of "Monism," of several months since, and to congratulate yourself and the managing board on the fact of putting THE OPEN COURT squarely on the Monistic issue.

I am astonished to see so many of your contributors, either careless or indifferent to this fundamental sentiment.

Nature presents no other field of labor for the Scientist but that of the Monistic order.

The second consideration is a personal matter in this same line of philosophy. Much of my time, for the last twenty-five years, has been devoted to the study of man as standing at the head of the phenomenal universe; and what was my great joy to



find, on reading the article above referred to, with many of your articles in harmony with Mr. Hegeler's sentiments, that the course of research adopted was strictly in line with this monistic philosophy.

He who follows Nature will, inevitably, travel in this path.

When the *bias of education* was overcome the following conclusions were self-evident:

1. That matter is the only constituent of the universe.
2. That matter, from whatever source, contained within itself all the attributes, powers and functions to do and accomplish all that is done by or with matter.
3. That matter must not only develop in the combination of forms, but that such perpetual evolution resulted, step by step, in a gradual refinement of matter so engaged.
4. The inevitable result, then, of such upward movement must reach the spiritual plane of matter in time. In short, I was driven to the conclusion that spirit is a sublimated essence of matter.

5. That the human origin is necessarily terrestrial, body, soul and spirit.

6. If man has a spiritual part it must of necessity contain the elements of immortality.

When I say that there are processes of the natural world recognizable by the human powers by which these facts can all be demonstrated, I speak what I do know. And if "*Science is the classification of natural facts in reference to principle*," the spiritual origin and his immortal existence of man can be brought within the range of demonstrated philosophy.

This is a wonderful age of discovery. The intellect of man is his sole reliance; and is it not quite as consistent that he should be spiritually blessed and comforted, while he is attaining to so many temporal blessings?

Feeling the promptings of a higher nature he cannot be supremely blessed until he can fairly fathom the depths of his own nature, as to his origin, to the make-up of his being, and his final destiny. If this philosophy has any fact in it, these problems are all solved on a "*scientific basis*." "Truth only wants a hearing."

L. A. FISHER.

Prof. Georg von Glözycki, by reason of the great distance, was unable to revise the translation and proof-sheets of his essay "Determinism versus Indeterminism" in Nos. 25 and 26 of THE OPEN COURT. In a letter which was received this week he praises the translation as being excellent, and requests at the same time that the following corrections and substitutions be made:

Page 730, column 2, line 11 from above, read: *Reasons are cognitions*, instead of: *Causes are acknowledgments*.

Page 731, column 1, line 6 from below, read: *regular*, instead of: *imperative*.

Page 731, column 2, line 4 from above, read: *some processes*, instead of: *all processes*.

Page 732, column 2, line 7 from above, read: *reason*, instead of: *cause*.

Page 732, column 2, line 17 from above, read: *annihilate*, instead of: *ignore*.

Page 733, column 2, line 12 from above, read: *contrary action*, instead of: *contradiction*.

Page 733, column 2, line 26 from above, read: *it has been said*, instead of: *as has been said*.

Page 733, column 2, line 13 from below, read: *like external circumstances*, instead of: *like circumstances*.

Page 762, column 1, line 20 from above, read: *this universe*, instead of: *this will*.

In No. 28 of THE OPEN COURT on page 808, in our review of "Theism or the Knowability of God," by the Rev. Henry Truro

Bray, M. A., LL.D., we inadvertently located the author in Boonville, Md., instead of Boonville, Mo. The book is published and sold by the author for 60 cents. The St. Louis *Republican* speaks of this publication in the following terms:

"The Broad Church has appeared. In its representative there is no concealment. It has moreover come with a force of conviction which will not easily be put down, and with a reasoned argument which it will tax the ability of his opponents to meet. . . . A lucid statement. . . . an able pamphlet. . . . likely to make him well known not only here but elsewhere."

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

### CHAPTER XI.—Concluded.

This was a gloomy morning for the Hummel family. Before breakfast Herr Hummel sat down to his writing table and composed an advertisement for the daily paper, in which ten thalers reward was offered to any one who would discover the malignant poisoner of his dog. The ten thalers were underlined with three dashes. Then he went to his window and looked savagely upon the haunts of his opponent and on the Chinese temple which had been the cause of this new disturbance. Then he turned to his wife and, pacing up and down, said:

"I have no doubt about the case."

"I do not understand you," answered his wife, who on this trying morning was taking a second breakfast; "and I do not understand how you can be certain in this matter. It is true that there is a something about those people which is always repugnant to us, and it may be a misfortune to have such neighbors. But you have no right to assume that they have poisoned the dogs. I cannot think that such an idea would have entered into the head of Frau Hahn. I admit that she is an ordinary woman, and the doctor says it was dumplings, which points to a woman as being the guilty one. But when our red dog was caught with the partridges in their kitchen, she sent me back the dog with her compliments, and she thought it was not good behavior in him, as he had eaten three of the birds. That was civil, and I can find no murderous intention in it. And he surely does not look as if he would do anything to our dogs at midnight."

"He is malicious," growled Herr Hummel; "but you have always had your own opinion about those people. He has been hypocritical toward me from the first day when he stood by his pile of bricks before these windows and turned his back to me. I have always allowed myself to be persuaded by you women to treat him as a neighbor with greetings and civil speeches; and I have been silent when you have carried on your idle gossip with the woman over there."

"Our idle gossip, Henry," exclaimed the wife, setting down her coffee-cup with a clatter; "I must beg of you not to forget what is due to me."

\*Copyrighted.



"Well, well, it was not unkindly meant," Herr Hummel hastened to add, in order to allay the storm which he had inopportunistically brought upon himself.

"What you meant you must know, I take it as I heard it; it shows little feeling in you, Hummel, on account of a dead dog to treat your wife and daughter as idle gossips."

This disagreement added still more to the gloom and ill-humor of the morning, but did not in any way advance the discovery of the culprit. It was in vain that the mistress of the house, in order to turn away her husband's suspicions from the Hahn family, raised many other conjectures, and, with Laura's help, tried to throw the blame on their own employes or the watchman, and that she at last suggested even the shop-porter over the way as the possible evil-doer. Alas! the reputation of the dogs was so dreadful that the Hummel family could easier count the few men who did not wish evil to the dogs, than the many whose wish and interest it was to see the monsters at Cocytus. The news ran like wildfire through the streets, there was a crowd round the fruit-woman as on 'Change, and people spoke of the evil deed everywhere without pity, hostilely and maliciously. Even among those in the streets who tried to show outward signs of sympathy, the prevailing feeling was hardly concealed. It is true there were some sympathisers. First Frau Knips, the washer-woman, with voluble indignation; then even Knips the younger ventured pityingly into the neighborhood of the house—he was a clerk in the hostile business, having gone over to the enemy, but never ceased to show respect to his former instructor on all occasions, and to pay unacceptable homage to Fräulein Laura. At last the comedian of the theater, whom they generally invited on Sundays, came, and related many amusing stories. But even these few faithful adherents were suspected by some of the household. Gabriel distrusted the Knips family and Laura detested the clerk, and the comedian, formerly a welcome guest, had, some evenings before, in passing by, inconsiderately expressed to a companion, that it would be a praiseworthy deed to remove these dogs from the stage of life. Now this unhappy idea was repeated to the mistress of the house, and it lay heavy on her heart. For fifteen years she had accepted this man's homage with pleasure, shown him much friendliness, and given him enthusiastic applause at the theater, not to speak of the Sunday dinner and preserves; and now when the buffoon lowered his head sympathisingly and expressed his horror, his face, from the long habit of comic action, lengthened itself so hypocritically, that Frau Hummel suddenly saw a devil grinning out of the features of the once valued man; her sharp remarks upon Judas frightened in return the comedian, because it revealed to him the danger of losing his best house of entertainment, and the more dolorous he felt, the more equivocal became his expression.

During all these occurrences the Hahn family kept quiet in the background. They displayed no signs of undue pleasure, and no unnatural sympathy came from the silent walls. But at mid-day, when Frau Hummel went to refresh herself a little in the air, she met her neighbor; and Frau Hahn, who since the garden scene had felt herself in the wrong, stopped and expressed her regret in a friendly way that Frau Hummel had experienced such an unpleasant accident. But the hostile feeling and suspicion of her husband echoed in the answer. Frau Hummel spoke coldly, and both separated with a feeling of animosity.

Meanwhile Laura sat at her writing-table, and noted down in her private journal the events of the day, and with a light heart she concluded with these lines:

"They're dead and gone! Removed the curse of hate—  
Erased the stain is from the book of fate."

This prophecy contained just as much truth as if, after the first skirmish of the siege of Troy, Cassandra had noted it down in Hector's album;—it was confuted by the endless horrors of the subsequent time.

At all events, Spitehahn was not gone; his life was saved. But the night's treachery had exercised a sorrowful influence on the creature, both body and soul. He had never been beautiful; but now his body was thin, his head swelled, and his shaggy coat bristly. The glass splinters which the skillful doctor had removed from his stomach seemed to have got somehow into his hairs, so that they started bristling from his body like a bottle-brush; his curly tail became bare, only at the end there remained a tuft of hair, like a bent cork-screw with a cork at the end. He no longer wagged his tail; his yelping ceased; night and day he roved about silently; only occasionally one heard a low, significant growl. He came back to life, but all softer feelings were dead in him; he became averse to human beings, and fostered dark suspicions in his soul; all attachment and fidelity ceased; instead of which he showed lurking malice and general vindictiveness. Yet Herr Hummel did not mind this change; the dog was the victim of unheard-of wickedness, which had been intended for the injury of himself, the proprietor of the house; and had he been ten times more hideous and savage to human beings, Herr Hummel would still have made a pet of him. He stroked him, and did not take it amiss when the dog showed his gratitude by snapping at the fingers of his master.

Whilst the flames of just irritation still shot forth from this new firebrand of the family peace, Fritz returned from his journey. His mother immediately related to him all the events of the last few weeks—the bell-ringing, the dogs, the new hostility.

"It was well that you were away. Have you always had a good feather bed? At the inns they are very regardless of the beds of strangers. I hope that in the



country, where they rear geese themselves, they may have shown more care. As regards this new quarrel, talk to your father about it, and do what you can to restore peace."

Fritz listened silently to his mother's account, and said soothingly:

"You know it is not the first time; it will pass over."

This news did not contribute to increase the cheerfulness of the Doctor. Sadly he looked from his room on the neighboring house and the windows of his friend. In a short time a new household would be established there; might not, then, his friendship with the Professor be affected by the disturbances which of old existed between the two houses? He then began to arrange the notes which he had collected on his journey, but the footsteps on the grotto gave him an uncomfortable feeling, and the track of the wild hunters made him think of Ilse's wise words, "It is all superstition." He put away his papers, seized his hat, and went out meditating, and not exactly gaily disposed, into the park. When he saw Laura Hummel a few steps before him on the same path, he turned aside, in order not to meet any one from the hostile house.

Laura was carrying a little basket of fruit to her godmother. The old lady was residing in her summer house in a neighboring village, and a shady footpath through the park led to it. It was lonely at this hour in the wood, and only the birds observed how free from care was the smile that played round the little mouth of the agile girl, and how full of glee were the beautiful deep blue eyes that peered into the thicket. But although Laura seemed to hasten, she stopped frequently. First it occurred to her that the leaves of the copper beech would look well in her brown felt hat; she broke off a branch, took off her hat, and stuck the leaves on it; and in order to give herself the pleasure of looking at it, she held her hat in her hand and put a gauze handkerchief over her head for protection against the rays of the sun. Then she admired the chequered light thrown by the sun on the road. Then a squirrel ran across the path, scrambled quick as lightning up a tree and hid itself in the branches; and Laura looked up and perceived its beautiful bushy tail through the foliage, and she fancied herself on the top of the tree, in the midst of the foliage and fruit, swinging on a branch, then leaping from one bough to another, and finally taking a walk—high in the air, on the tops of the trees—over the fluttering leaves as though upon green hills.

When she came near the water that flowed on the other side of the path, she perceived that a large number of frogs, sitting in the sun on the bank, sprang into the water with great leaps, as if by word of command, and she ran up to them and saw with astonishment that the frogs looked quite different in the water from what they did on land, not at all so clumsy; they went along

like little gentlemen with big stomachs and thick necks, but with long legs which struck out vigorously. Then when a large frog steered up to her and popped his head out of the water, she drew back and laughed at herself. Thus she passed through the wood, herself a butterfly, and at peace with all the world.

But her fate pursued her. Spitehahn had, from his usual place on the stone steps, watched her proceedings; from under the wild hairs which hung over his head like a moustache, he had squinted after her, got up at last and trotted silently behind her, undisturbed by the rays of the sun, the basket of fruit, or the red handkerchief of his young mistress. Between the town and the village the road ascended from the valley and its trees to a bare plain, on which the soldiery of the town sometimes practiced their drill, and where in peaceful hours a shepherd pastured his flock; the path ran obliquely over the open plain to the village. Laura stopped on the height at times to admire the distant sheep and the brown shepherd, who looked very picturesque with his large hat and crook. She had already passed the flock when she heard a barking and threatening cry behind her; she turned round and saw the peaceful community in wild uproar. The sheep scattered in all directions—some running away frightened, others huddled together in a ditch; the shepherd's dogs barked, and the shepherd and his boy ran with raised sticks round the disturbed flock. While Laura was looking astonished at the tumult, the shepherd and his boy rushed up to her, followed by two large dogs. She felt herself seized by a rough man's hand; she saw the angry face of the shepherd, and his stick was brandished close before her eyes.

"Your dog has dispersed my flock. I demand punishment and compensation."

Frightened and pale as death, Laura sought for her purse; she could scarcely find words to say, "I have no dog; let me go, good shepherd."

But the man shook her arm roughly. Two gigantic black beasts sprang upon her and snapped at her handkerchief.

"It is your dog; I know the red beast," cried the shepherd.

This was quite true, for Spitehahn had indeed observed the flock of sheep and devised his reckless plan. Suddenly, yelping hoarsely, he had sprung on a sheep and had bitten it severely in the leg. Then followed the flight of the flock, rushing together in a heap—Spitehahn in the midst of them, barking, scratching and biting—now along a dry ditch to the left, then down the slope to the wood into the thickest copse. At length he trotted home in safety, showing his teeth, and leaving his young lady to perish under the hand of the shepherd, who was still brandishing his stick over her.

"Let go of the young lady," called out the angry voice of a man. Fritz Hahn sprang forward, pushed



back the arm of the shepherd and caught Laura fainting in his arms.

The interposition of a third party drew from the shepherd new complaints, at the conclusion of which he again, in a flaming passion, tried to lay hold of the young lady, and was about to set his dogs at the Doctor. But Fritz, deeply roused, exclaimed, "Keep your dogs back, and behave yourself like a man, or I will have you punished. If a strange dog has injured your flock, adequate compensation shall be made. I am ready to be security to you or to the possessor of the sheep."

Thus he spoke, holding Laura firmly in his arms; her head lay upon his shoulders, and the red handkerchief hung over his waistcoat down to his breast. "Compose yourself, dear Fräulein," he said, with tender anxiety.

Laura raised her head and looked fearfully on the countenance which, excited with tenderness and sympathy, bent over her, and she perceived her situation with alarm. Fearful fate! he again for the third time the inevitable friend and preserver! She extricated herself from him, and said, in a faint voice, "I thank you, Doctor, I can walk alone now."

"No, I cannot leave you thus," cried Fritz, and again began to negotiate with the shepherd, who meanwhile had fetched the two victims of the murderous dog, and laid them down as proofs of the ill deed. Fritz put his hand into his pocket and handed the shepherd an installment of the money promised as compensation, gave him his name, and settled a future meeting with the man, who, after the appearance of the money, became more calm.

"I pray you take my arm," he said, turning chivalrously to Laura.

"I cannot accept that," replied the maiden, quite confused, and thinking of the existing hostility.

"It is only my duty as a man," said Fritz, soothingly. "You are too exhausted to go alone."

"Then I beg of you to take me to my godmother; she lives near here."

Fritz took the little basket from her, collected the fruit that had fallen out, and then conducted her to the village.

"I should not have been so much afraid of the man," said Laura, "but the black beasts were so fearful."

She took his arm hesitatingly; for now, when the fright had passed, she felt the painfulness of her situation, and alas! conscience-smitten. For she had early in the day thought the traveling toilet of the Doctor, as she saw him return home, unendurable; but Fritz was not a man who could long be considered unendurable. He was now full of tender feelings and care for her, endeavored to spare her every roughness on the road, stretching out his foot in going along to put the little

stones out of the way. He began an indifferent conversation about the godmother, which obliged her to talk, and brought other thoughts into her head. It happened besides, that he himself highly esteemed the godmother; indeed, she had once, when he was a school-boy, given him a cherry-cake and he had in return composed a poem on her birth-day. At the word poem Laura was astounded; in that house, too! Could they write poetry? But then the Doctor spoke very slightly of the elevating creations of happier hours, and when she asked him:

"Have you, indeed, written poetry?"

He answered, laughingly, "Only for home use, like every one."

Then she felt quite depressed by his cold disregard of poetry. There certainly was a difference between one style of verse and another; at Hahn's they only wrote about cherry-cakes. But immediately afterwards she blamed herself for her unbecoming thoughts towards her benefactor. So she turned in a friendly way to him and spoke of the pleasure she had taken just before in the squirrels of the wood. She had once bought one of a boy in the streets and had set it free, and the little animal had twice sprung from the trees upon her shoulders; and she had at last run away, with tears in her eyes, that it might remain in the woods. Now, when she saw a squirrel, it always appeared as if it belonged to her; and she undoubtedly deceived herself, but the squirrels seemed to be of the same opinion. This story led to the remarkable discovery that the Doctor had had a similar experience with a small owl, and he imitated the way in which the owl nodded its head when he brought in its food; and in doing so his spectacles looked so like owl's eyes that Laura could not help laughing.

Conversing in this way they arrived at the godmother's door. Fritz relinquished Laura's arm and wished to take leave. She remained standing on the threshold with her hand on the latch and said, in an embarrassed tone:

"Will you not come in at least for a moment, as you know my godmother?"

"With pleasure," replied the Doctor.

The godmother was sitting in her summer cottage, which was somewhat smaller, damper and less pleasant than her lodging in the town. When the children of the hostile houses entered together—first Laura, still pale and solemn; behind her the Doctor, with an equally serious countenance—the good lady was so astonished that she sat staring on the sofa and could only bring out the words:

"What do I see? Is it possible? You two children together!"

This exclamation dispelled the magic which for a moment had bound the young souls to each other.



Laura went coldly up to the godmother and related how the Doctor had accidentally come up at the time of her distress. But the Doctor explained that he had only wished to bring the young lady safely to her; then he inquired after the health of the godmother and took his leave.

While the godmother was applying restoratives and determining that Laura should return home another way under the care of her maid-servant, the Doctor went back with light steps to the wood. His frame of mind was entirely changed and a smile frequently passed over his countenance. The thought was constantly recurring to him how the maiden had rested in his arms. He had felt her bosom against his; her hair had touched his cheeks and he had gazed on her white neck. The worthy youth blushed at the thought and hastened his steps. In one thing at least the Professor was not wrong—a woman is, after all, very different from the ideal that a man derives from the study of human life and the history of the world. It certainly seemed to the Doctor now that there was something very attractive in waving locks, rosy cheeks and a beautiful form. He admitted that this discovery was not new, but he had not hitherto felt its value with such distinctness. It had been so touching when she recovered from her swoon, opened her eyes and withdrew herself bashfully from his arms; also his having defended her so valiantly filled him with cheerful pride. He stopped on the field of battle and laughed out heartily. Then he went along the same road which Laura had come from the wood; he looked along the ground as if he could discover the traces of her little feet upon the gravel, and he enjoyed the brightness and warmth of the air, the alluring song of the birds, the fluttering of the dragon-flies, with as light a heart as his pretty neighbor had done shortly before. Then the recollection of his friend came across him; he thought, with satisfaction, of the agitations of the Professor's mind and the commotion which Thusnelda had brought into it. The result had had a droll effect upon the Professor; his friend had been very comical in the pathos of his rising passion. Such a firm, earnest being contrasted curiously with the whimsical attacks which fate makes on the life of earth-born creatures. When he arrived at the last bush in which rustled one of the little grasshoppers, whose chirping he had often heard in times of anxiety, he spoke out gaily, "Even these must be at it; first the sheep, then the grasshoppers." He began singing half aloud a certain old song in which the grasshoppers were asked to go away and no longer to burden his spirit. Thus he returned home from his walk in right cheerful frame of mind, like a man of the world.

"Henry," began Frau Hummel, in the afternoon, solemnly to her husband, "compose yourself to listen to

a terrible story. I conjure you to remain calm and avoid a scene, and take pains to overcome your aversion; and, above all, consider our feelings."

She then related to him the misfortune that had occurred.

"As to the dog," replied Hummel, emphatically, "it has not been clearly shown that it was our dog. The testimony of the shepherd does not satisfy me; I know this fellow and require an impartial witness. There are so many strange dogs running about the city that the safety of the community is endangered, and I have often said it is a disgrace to our police. But if it should be our dog, I cannot see anything particularly wrong about it; if the sheep stretched out its leg to him and he bit it a little, that is its own affair and there is nothing to be said about it. As to what further concerns the shepherd, I know his master—so that is my affair. Finally, as regards the young man over there, it is your affair. I do not wish to visit on him the bad behavior of his parents, but I will have nothing to do with those people."

"I must call your attention to the fact, Hummel," interposed his wife, "that the Doctor has already paid money to the shepherd."

"Money for my child? That I cannot permit," exclaimed Hummel. "How much was it?"

"But father——" said Laura, imploringly.

"How can you expect," exclaimed Frau Hummel, reproachfully, "that your daughter, in danger of death, should count the groschens that her rescuer paid for her?"

"That's just like a woman," grumbled the master of the house; "you have no head for business; can you not incidentally ask him? The shepherd I take upon myself, and shall not trouble myself about the Doctor. Only this I tell you: the affair must be shortly settled and our relations with that house must remain as before. All I ask is to go on smoothly and I will take no notice of these Hahns."

After this decision he left the ladies to their feelings.

"Your father is right," said Frau Hummel, "to leave the principal matter to us; with his harsh disposition thanks would come very ungraciously."

"Mother," said Laura, entreatingly, "you have more tact; can you not go over there?"

"My child," answered Frau Hummel, clearing her throat, "that is not easy. This unfortunate occurrence of the dogs has left us women too much at variance. No, as you are the principal person now concerned, you must go over there yourself."

"I cannot visit the Doctor," exclaimed Laura, alarmed.

"That is not necessary," said Frau Hummel, soothingly. "There is one advantage in this neighborhood—that we see from our windows when the men go out;



then you shall rush over to the mother and address your thanks for the son to her. You are very judicious, my child, and will know how to act."

Thereupon Laura sat at the window, not well pleased to sit as watcher upon her neighbors; this lying in wait was repugnant to her. At last the Doctor appeared on the threshold; he looked the same as usual; there was nothing chivalrous to be seen in him; his figure was slender and he was of middle height—Laura liked tall people. He had an intellectual countenance, but it was concealed by his large spectacles, which gave him a pedantic appearance; when he did smile his face became quite handsome, but his usual serious expression was not becoming to him. Fritz disappeared round the corner and Laura put on her hat with a heavy heart and went into the hostile house, which she had never yet entered. Dorchon, who was not in the secret, looked astonished at the visit, but with quick intuition connected it with the return of the Doctor and announced, of her own accord, that neither of the gentlemen were at home, but that Frau Hahn was in the garden.

Frau Hahn was sitting in the Chinese temple. Both women stood opposite each other with a feeling of embarrassment; both thought at the same time of their last conversation and to both the recollection was painful. But with Frau Hahn the danger to which Laura had been exposed at once overcame this natural nervousness. "Ah, you poor young lady!" she began, but while overflowing with compassion, with delicate tact she drew away from the Chinese building, feeling that it was not an appropriate place for this visit and invited her to sit on a little bench in front of the white Muse. This was the pleasantest spot about the house; here the orange tree smiled upon its donor, and Laura could bring herself into a grateful mood. She told her neighbor how deeply she felt indebted to the Doctor, and she begged her to say this to her son, because she herself in the confusion had not properly fulfilled this duty. She then entered into the necessary business about the bad shepherd. Good Frau Hahn was pleased with her thanks and in a motherly way begged Laura to take off her hat for a little while, as it was warm in the garden. But Laura did not take off her hat. She expressed, in fitting terms, her pleasure in the garden, said how beautifully it bloomed, and heard with satisfaction of the splendid orange tree which had been sent anonymously to Herr Hahn, the fruit of which was sweet, for Herr Hahn had celebrated the return of his son by an artistic drink, for which he had taken the first fruit of the little tree.

It was altogether a diplomatic visit, not extended unnecessarily; and Laura was glad when, on departing, she had repeated her compliments and thanks to the Doctor.

In Laura's secret record also the events of this day were very shortly disposed of. Even an observation she had begun on the happiness of the lonely dwellers in the wood remained unfinished. How was it, Laura?—you, who write down everything; who, when an insect or a sparrow hops in at the window, burst forth into verse! Here was an event influencing your whole life—danger, unconsciousness in the arms of a stranger, who, in spite of his learned aspect, is a handsome youth! This would be the time to depict and indulge in fancy dreams. Capricious girl, why does this adventure lie like a dead stone in the fantastic landscape that surrounds thee? Is it with thee as with the traveler, who, weary of the Alpine scenery, looks below him and wonders that this marvelous nature so little impresses him, till gradually, but perhaps not for years, the scenes pursue him, waking or dreaming, and draw him anew to the mountains? Or has the nearness of the wicked beast who occasioned the outrage impeded the flight of your soaring wings? There he lies before your threshold, red and ragged, and licks his moustache.

(To be continued.)

## The Open Court

PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRESIDENT. DR. PAUL CARUS, EDITOR.

THE OPEN COURT is devoted to the work of reconciling Religion with Science. The founder and editor have found this conciliation in Monism—to present and defend which is the main object of THE OPEN COURT.

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All communications should be addressed to

THE OPEN COURT,

Nixon Building, 175 La Salle Street,

P. O. DRAWER F. CHICAGO, ILL.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 33. (Vol. II.—7.)

CHICAGO, APRIL 12, 1888.

{ Three Dollars per Year.  
Single Copies, 10 cts.

## THE ORIGIN OF REASON.

BY LUDWIG NOIRÉ.

*Translated from the German in the Gegenwart by JUPON.*

If I were to tell a man who had never seen ice and was wondering what had happened to a lake in winter, "The water is frozen," this would be an explanation. This explanation contains two elements, viz.:

(1.) A *sound*, which certainly cannot contribute in the least to the explication of the matter.

(2.) A *concept*, which in its accurate acceptance likewise implies no more than the phenomenon itself, as present before us and as perceived by us.

Why is this simple statement then accepted as satisfactory? Here is a difficult question, and it may not be answered without a consideration of the nature and origin of reason. Locke has dealt with the problem and deduced from it the uncertainty and mere seemingness of most human knowledge.

The distinctive feature of my answer to the man is that the phenomenon is generalized by the concept "frozen" or, more correctly, included under a general definition.

Concepts are generalizations and it is these generalized concepts that constitute the substance of human knowledge.

When it is real cold, all living creatures feel it. But only the human being can say: "I am cold." A man can say this on a hot summer's day, he can think it, even when not affected by it. Why? Because he possesses general concepts.

And how has he come to possess them? This is the most perplexing of the questions that touch humanity, for it touches the *origin of reason* and reason is man.

If I should say: "Man thinks because he speaks: he has general concepts because he has words," I know that nine-tenths of my readers would shake their heads and say: "No. Man speaks because he thinks." All great truths are known first as paradoxes, and a long time elapses before people become accustomed to them, before they leave the old way of thinking and accommodate themselves to the new. How long it was before men would distrust their eyes, and believe that it was the earth that revolved and not the sun!

Words are the fixed points which define the limits of the concepts they have brought into existence. Without words there would be only fleeting, shadowy and

disorderly impressions. An idea has never existed in man without its material counterpart, the word. And yet, I do not say that with every word as a sound there must be an accompanying idea. Parrots imitate our words, yet produce only sounds; to them they are sounds and nothing else, just as the words of an unknown tongue are mere sounds to us. The sound is dead, the word is alive and the life of a word is in the idea.

The great problem is, how ideas are united with sounds and thus made alive. This question has engaged the attention of philosophers of all ages, while great acumen and imaginative talent have been exercised in its solution. System upon system arose wherein fancy and imagination were given full scope, and I firmly believe there is no topic upon which so great a variety of opinions has been expressed and so many treatises written as upon the origin of language. It was intuitively felt that this was the point to place the lever, and that, if their efforts to move the rock which buried the secret would be successful, a fountain of everlasting and living truth would leap forth to clarify the province of human thought and human activity.

Yet, to reach this point, the flights of fancy were first to be restrained. This was accomplished by comparative philology. Its cardinal and motive principle was: There is a methodical, a scientific line of investigation which will lead to this secret and its elucidation. Critical thought and not dogmatic doctrine must guide us here, and careful investigations of empirical facts are to form the basis of all our conclusions. Whatever the ultimate result of our efforts may be, it is not permissible to determine it beforehand and employ it hypothetically, be its merits what they may. Modern science has materially modified the ideas of former times. The interest which, from the time of Plato to the eighteenth century, fettered philosophical thought to such topics as these, has been displaced by new interests of a totally different character. How radical these changes have been needs no better illustration than the fact that the *Société de Linguistique* in Paris, ranking among its members the foremost philologists of France, declares in one of the first clauses of its constitution, "it will accept no manner of contribution relating to the origin of language or the construction of a universal tongue."\*

\*Max Müller, in a lecture delivered before the University of Cambridge, May 28, 1868.



Thereafter imaginative works ceased to figure in this realm. This was necessary and beneficent if we consider what they had achieved. Yet philosophy, too, was banished from the province of philological investigation—a province in which philosophy is ordained to act a vital part—and this was unwise.

For what else is philosophy than the discovering of comprehensive and general points of view in *all* sciences? It is not the empirical material gathered together, it is the wonderful power of thought that has raised Copernicus, Galileo, Kepler and Newton to the rank of heroes in Natural Science.

With that interdict the question of the origin of language was banished from its natural and true sphere. The question was occasionally touched upon by the physiological and evolutionary theories of Helmholtz, Darwin, Broca and Kussmaul, and at times was discussed in the empty phraseology of a degenerate pseudo-philosophy.

It would have been, in my estimation, more worthy of a philological society that included the master-minds of science, to have said: "No philosophy has the right to advance an opinion upon the origin of reason, the nature of thought—its highest problems—without having first recognized and taken cognizance of the results of comparative philology; for language is the body of thought and both came into being together." Instead of this, the society divorced philosophy from philology, and said: "Look about thee for another source of information on the origin of language; there is nothing known of it here and we shall not trouble ourselves further about subjects that lie beyond our jurisdiction." Thus disowned, philosophy asked: "At least tell me of the nature of human speech and wherein it differs from that of animals, with which it is so commonly compared. I must have some principle to guide me in my speculative peregrinations." "No information on that point either; that's not within our province. Thou shalt find what thou wantst in Brehm's *Animal Life*; he has drawn up the complete vocabulary of a singularly clever parrot. That will show thee how far the linguistic power of an animal goes." Thus the philologists said: and no less a considerable man than Friedrich Müller takes compassionate leave in these words: "The difference between the language of man and that of brute creation is quantitative and not qualitative."

This certainly simplifies the matter greatly, for it thus becomes a question of mere calculation. Brehm's "singularly clever" parrot, that Mezzofanti of brute creation, could use in the neighborhood of 150 words with intelligent discrimination; on the other hand the total vocabulary of English miners in certain districts counts but 300. It is now plain how many words the parrot will have to learn to arrive at that stage of intelligence the English miner has attained and thus be able

to verify his claim to universal suffrage. It would be a great step forward for all parrots, and they could at once politely request that the nonsensical prattlers of their human kindred should not be honored with their name.

But levity aside. In order that the reader may profit by this discussion, I propose to specify an infallible criterion which will, in every case, enable him to avoid confusion when oracular wisdom speaks of the identity or analogy of human and animal speech.

One hundred years ago (1881) a plain and simple man, Immanuel Kant, gave the world a commonplace looking book. It was printed on gray paper, was highly inaccurate and bore the strange title: *Critique of Pure Reason*. This book had manifold and important consequences, which cannot be enumerated here. One of them which is perhaps best known is that Berlin, after Hegel, derived from this book its name the "*City of Pure Reason*."

We may read to-day in the aforesaid book (Johann Friedrich Hartknoch published it at Riga) all manner of strange and useful things, as, for example: That the whole business of the human reason is with representations (not with mere sensations) and that these representations arranged, co-ordinated and moulded by concepts, become objects which are the only true content of all our rational thinking, and that our thought therefore assumes an objective character throughout. And it follows thence that if we deviate from the paths of empirical cognition, we shall lose ourselves in hallucinations, extravagances and in the mazes of a cognitive activity that has overstepped its true limits.

Representations and objects then which are given by the senses, but are moulded and formed by reason and stamped by concepts! Now we may reveal to the reader the promised secret. It is this: Every word in human speech had, originally, reference to an object which was signified by a word, and words have, at the very start, first received meaning and intelligibility from these representations.

Let us return to the example given at the start. "The water is frozen" and "I am freezing." Should the question be put to the reader how the concept and word "freezing" have arisen, the chances are a thousand to one that he will launch into one of the current theories as to the origin of language and answer, "From a sensation, of course!" Freezing, shivering and chattering with the teeth was the original symptom. You can hear it plainly in the word freeze, frost, *frigus*, *froid*! What a chill runs over one when it is mentioned! It stands to reason that people should personify other things, such as plants and water, and say of them, they freeze, they are frozen. Is not man the "measure of all things" according to Protagoras, and does not man imprint his own being on every other existing thing?



And yet, how so easy, natural and reasonable this all sounds, it is positively wrong. According to the revelations of Kant it is not possible that the sensation of freezing has become a concept and a word otherwise than through the long and round-about way of representations of external objects and thus frozen (*frigus*, *ψυχρ*, *ψύω*) water must have found a lingual or (what is the same thing) a rational designation long before; and without such designation or an analogous form of concept the sensation could never have found expression or association whatever.

This follows unavoidably from the doctrine of Kant. And strange! Comparative philology, without knowing or dreaming of Kant, has fully established this origin and natural growth of concepts after its own fashion and by its own empirical methods.

Yet, instead of being converted by this great and marvelous coincidence to the belief of the great genius that had divined these results with prophetic glance, it still continues to reject the aid of philosophy, even in those depths where empiricism cannot penetrate, and places its sole dependence upon instruments that the hard and rocky soil defies. Far from following the path of science it seems to have devoted itself to fumbling and groping about in regions of darkness, whence only the light of philosophy can be its guide and illuminate its path to further empiric investigation.

Thus it is that comparative philology has yet to learn from Kant, if it will ever keep in view the true purpose of its mission, "the history of the human mind."

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M. D.

Part IV.

DIET.

The intimate interaction of body and mind is most strikingly illustrated in the moral influence of diet. Modern science has revealed the fact that the various ingredients of the fuel feeding the fire of a conflagration can be tested by the spectrum-lines of the flame, and with the same certainty a searching analysis could trace every change of diet to its effect in a modification of our mental disposition. "*Der Mensch ist, was er isst*," says a German proverb; "Man is what he eats." The maxims of dietetic hygiene thus gain a moral significance, a fact recognized in the principle of the temperance movement, and, indeed, in the ethics of all health-loving nations.

But the delusions of the dualism which contrasted a supernatural spirit-world to the phenomena of the material universe, led to the equally baneful belief in the immaterial and self-dependent nature of the human soul. The "immortal mind" was long considered a

mere guest of its earthly tabernacle, the despised body which might temporarily limit the freedom of its tenants, but could not affect them by its decay and might eventually be cast off:

"—As a garment, no more fitting,  
As a house which I am quitting,  
As a cage, from which at last,  
Like a bird my soul has passed."

That poetic but sadly erroneous theory biased the ethics of many of the greatest ancient and mediæval moralists, and it is a most suggestive fact that the predominance of their dualism is always reflected in the degree of their indifference to that chief basis of physical welfare: a wholesome diet. Mosaism, with all its hierarchic tendencies, is, after all, a manful, earth-loving and nature-abiding creed, and the persistent inculcation of dietetic health-laws harmonizes with its equally persistent silence on the metaphysical vagaries of resurrection and other-worldly punishments and rewards. The ethics of Socrates, on the other hand, seem to have anticipated many tenets of the neo-platonic school, and at the banquets of Agathon, in the midst of his table-talk lectures on the immortality of the soul, he quaffs cup after cup of alcoholic beverages as calmly as he afterward drained the poison-chalice of the oligarch. The Gnostics boasted their disregard of all non-spiritual concerns, and among the followers of the world-renouncing Messiah that spiritism assumed the form of an absolute indifference to the welfare of the earthly body. The health code of the Hebrew law-giver was revoked; the authorities of the Patristic era gloried in an ultra-cynical neglect of dietetic cleanliness, or even deliberately tainted their food with bitter and loathsome admixtures to mortify the natural cravings of the palate. During the middle ages, too, the dietetic purism, which an amplification of the Mosaic code had enforced upon the disciples of Islam, contrasted strangely with the habits of their western neighbors, who scouted the interdiction of pork and wine, quoting the words of their master, that no man can be defiled by things that enter his mouth.

That mistake avenged itself in the ravages of scrofula and alcoholism, but even in that age of dietetic aberrations, the consequences of *quantitative* excesses were too striking to be entirely ignored. In the popular dramas of the middle ages the crapulent monks often seem to parody their own foibles, and the fact that repletion is apt to induce mental indolence ("*plenus venter non studet libenter*") assumed its proverbial form in the convent schools of southern Germany. The moral influence of habitual surfeits contrasts, indeed, most suggestively with the effect of abstemious habits. Gluttony torpifies the mental faculties. The "after-dinner lassitude" finds its physiological explanation in the circumstance that the work of digestion monop-

\*Copyrighted.



olizes the energies of the organism and that transient torpor may become a chronic aversion to mental efforts. The *bonhomie* of epicures can be traced to a similar cause. Yielding in argument is easier than controversy; the indulgence of a generous impulse is more pleasant than its suppression, and the liberality associated with the after-effect of a full meal may be founded on indolence as much as on philanthropic principles, plethoric gluttons being notoriously subject to fits of brutal passion. The same gourmand, who, in the enjoyment of his siesta, will grant the request of an insolent petitioner to obviate the annoyance of further importunities, may, before night, kick his wife and half kill his child for a trifling offense. The irascible temper of Squire Potbelly may have a purely physical cause: the irritating influence of vitiated humors; but, as usual, such physical predispositions are associated with their moral correlatives: Pessimism, world-weariness and the *laus temporis acti*, a mania for the depreciation of contemporary tendencies. I knew an old farmer whose frequent fits of indigestion never failed to explode in raging diatribes on the wickedness and incapacity of the rising generation. Under the influence of a similar distemper, the father of Frederick the Great used to lecture his household on the decadence of Christian ethics, and finish his homily by beating his son black and blue. Walter Savage Landor, who could sacrifice a night's rest to the elaboration of a sentimental sonnet, was none the less prone to paroxysms of after-dinner wrath. During his struggles with the gastric consequences of an eel pie, his servants would flee as from the presence of a madman, and the citizens of Florence preserve a tradition that the discovery of a neglected pot-flower once impelled him to fling his valet from a third story window. The eupeptic prelates of the middle ages were often afflicted with decidedly unchristian tempers, and in their controversies were notoriously apt to answer arguments with personal insults.

Habitual gluttons are not often great thinkers, but it cannot be denied that, under the stimulus of an urgent motive, they have proved themselves capable of heroic physical efforts. Thus the sluggish boar, at the approach of his foes, will rouse himself from his torpor of surfeit and rout hounds and hunters by the desperate energy of his onset. Marshal Vendome, the great strategist, was also the greatest glutton of his century. He would devour his favorite viands with snap-bites, like a famished wolf, often correcting a slip of the fork by snatching up a tempting morsel with his fingers, and thus gorge himself till the expansion of his paunch threatened him with suffocation; yet, on the morrow of such surfeits, the arrival of a scout or a glimpse of the hostile vanguard would transform him into a warrior of the old Roman type. His ablest opponents were baffled by the skill and rapidity of his tactics, and after

a disastrous rout caused by the incapacity of an associate commander, the French army was twice saved by the superhuman efforts of the old cormorant. His energy compelled the surrender of Spanish insurgents who had worn out the armies of their own king, as they afterwards exhausted the resources of the French Empire; but after an ovation resembling the triumph of a Roman conqueror, the otherwise invincible veteran proceeded to indemnify himself for the privations of his campaign by engaging a staff of pastry-cooks and retiring to a Spanish country-seat, where he managed to gorge out his life in a single week. Milo of Crotona, the Sicilian Samson, was as much admired for the vigor of his digestive organs as for the fervor of his patriotism and the matchless prowess of his fists. In the war against Sybaris he marched at the head of his fellow-citizens, flaunting a lion-skin and a huge club; and once saved a synod of Pythagorean philosophers by using his arms to prop the pillars of a falling temple. He was an orator and a peerless athlete, but every now and then proved the versatility of his talents by an eating-match, and after defeating the best boxers of an international field day and carrying a young bull around the entire circuit of the arena, he crowned his exploits by roasting that bull and devouring the beef at a single meal—let us hope with the assistance of his bottle-holders. Our Saxon ancestors, too, were inclined to make gastric capacity a test of constitutional vigor. A feeble stomach was apt to qualify the prestige of a popular hero, and on his visit to Joetunheim, Thor himself defies the giant-king to produce his champion eaters and drinkers. King Attila, however, punished voracity as a breach of discipline, and Peter Bayle perhaps justly expresses his surprise that so many of the nations who enacted severe sumptuary laws against drunkenness should have considered gluttony a venial sin.

Gluttony tends to cynicism. Coarseness and extravagance of speech and manners go hand in hand with dietetic excesses, as for cognate reasons, the repulsiveness of voracious animals is generally aggravated by a want of cleanliness. Among the natives of the Arctic regions, where climatic causes make gluttony a pandemic vice, personal cleanliness is an almost unknown virtue, and Kane's anecdotes of polar household-habits depict a degree of squalor that would appal a gorilla. "Our poverty, but not our will consents," is a plea that could hardly be urged in behalf of the amateur-cynics developed in the mediæval strongholds of gormandage, and the *ne plus ultra* of reckless obscenity is not to be found in the satires of Petronius Arbiter, but in the dissertations of the Spanish monk-moralist Sanchez.

Habitual abstemiousness, on the other hand, is the concomitant of modesty, thrift, self-control and evenness of temper, and is compatible with heroic perseverance, though hardly with great energy of vital vigor.



The dietetic self-denials of Luigi Cornaro, a Venetian nobleman of the sixteenth century, enabled him to outlive the third generation of his epicurean relatives. During the latter decades of his long life he boasts of having enjoyed a peace of mind unattainable by other means, and one of his biographers admits that the impulse of wrath seemed to have become extinct in his soul, but remarks that the friends of the noble ascetic complained of a certain reserve and pedantry, quite foreign to his character during the period preceding his change of habits. He also became a poetaster, and only the urgent protests of an influential relative prevented him from publishing the inspirations of his mystic muse. St. Francis, during his latter years of penance, evinced a similar penchant, and the premature publication of his odes might have imperiled his chances of canonization in that age of classic revivals. A love of romance and mystery, with a distinct leaning towards the more extravagant forms of miraculism, is, indeed, an international characteristic of the abstemious East. Persia and the eastern provinces of the Caliphs, could boast of many poets, but only of few prominent philosophers, or inventors; natural science is an exotic plant in the soil of China and Japan, and the prodigious literature of ancient India is almost limited to spiritual extravagances. That poetical penchant is sometimes strangely associated with a pedantic conservatism of manners and opinion. All Asia is rite-ridden; the mystic-romantic Spaniard wears a practical stranger with an ultra-prosaic observance of meaningless formalities. Intellectual *asthenia*, however, is the common root of mysticism and ceremonialism.

Habitual abstinence, carried to ascetic extremes, is apt to result in spiritualistic aberrations. "Fast in the wilderness and you will see ghosts," says an Indian proverb, confirmed by the visions of millions of mediæval fanatics, who tried to exalt their souls by starving their bodies, and got their reward in the phantasmagoria of inanition. Under the influence of protracted starvation, the organism preys on its own tissues, and the degeneration of cerebral substance may partly account for the literary exploits of ecstatic nuns and apocalyptic hermits.

Within the bounds of reason, occasional fasts, however, are by no means incompatible with intellectual vigor, though they are chiefly apt to stimulate the activity of abstruse speculations. There are intellectual voluptuaries whose enjoyment of mental triumphs in controversy or cogitation seem, for the time being, actually to deaden their craving for material food. Isaac Newton, on the track of a cosmic secret, would send back plate after plate of untasted meals. Percy Shelley, in the words of his sprightly biographer, "indignantly refused to alloy the nectar of poetic inspiration with boarding-house soup," and in his creative moods rarely answered

a dinner-call without a sigh of regret. Benedict Spinoza, amidst the parchment piles of his bachelor-den, would fast for days in the ecstasy of his "*Gott trunk-enen*"—"God intoxicated"—meditations. Intermittent denutrition undoubtedly tends to clear off the cobwebs of the brain. The ancient custom of postponing the principal meal to the end of the day was perhaps propitious to mental lucidity; and Goethe, whose abhorrence of mediæval dissertations was modified by his partiality for the writings of Spinoza, testifies that the *Ethics* of the great pantheist, like the masterpieces of classic literature, cheered him "with a feeling akin to the pleasant impression experienced on entering a well lighted room."

Rare and enforced fasts, however, are apt to exercise an unfavorable influence on the temper of the patient. The captives of our menagerie cages submit in sullen silence to untold vexations, but a brief postponement of the dinner hour turns the whole circus into a pandemonium of grunts and shrieks. The querulous mood of an orthodox Mussulman during the observance of the yearly Rhamadan fast is equaled only by his exuberance of good humor at the conclusion of the penance. Sailors, who endure without a murmur the extremes of atmospheric hardships, are apt to rebel against the first attempt at dietary restrictions, and the report of a recent committee of investigation admits that the shortcomings of unprofessional cooks are among the most fruitful causes of desertions from the military service of the United States. Napoleon the Great personally supervised every detail of his commissary system, and the war-correspondent of the *London Times* justly predicted that the dietetic bereavements of the Crimean troops would cost the Government service a loss of popularity too great to be retrieved by a dozen victories.

For those very reasons, perhaps, the founders of ancient religions prescribed fasts as a crucial test of subordination, a test which our latter-day prophets hesitate to apply, and which indeed, in the popular form of its observance, has almost lost its afflictive significance. Father de Smet tells an anecdote of a converted tribe of Dakota redskins who patiently masticated their dry bull-beef for six days in the week, but devoted their Fridays to a festive re-union, culminating in an uproarious barbecue of maple-um and broiled mountain-trout. The *bona-fide* fasts of Islam, on the other hand, have seriously impeded the progress of its propaganda among the eupeptic tribes of the north.

Actual starvation exasperates, but eventually unmans, the sufferer. The pangs of hunger may excite a transient disposition to violent deeds of self-help, but in the course of time lead to more lasting results; and it is a most instructive, though melancholy, fact that under the purely physical influence of protracted famine, nearly all the distinctively human attributes have been



crushed out of many once noble nations: The sense of honor, patriotism, the instinct of beauty, and finally even the instinct of industry and the love of knowledge.

Pugnacity, the love of mirth and the instinct of friendship, however, stand their ground to the last, and like the social instinct, seem to have acquired their deep-rooted hold during the ages preceding the advance from the anthropoid stage of human development.

(To be continued.)

#### MONISM AND PHILOLOGY.

While during the last century all the natural sciences have made many wonderful discoveries, philology has not remained behind in contributing its share to the general work of progress. Through the efforts of the Grimm brothers the study of the languages became a comparative philology, which stated the laws of the growth of speech. Comparative philology found the key to a correct understanding of the Aryan languages in the study of Sanskrit,\* and new light poured in, by which the solution of many an obscure problem could be hoped for.

The study of language became a philosophy of language, and this philosophy corroborated the truth of Monism, which was recognized more and more in all the different sciences as the only consistent conception of the world.

One of the most prominent scholars in this domain is Max Müller. He was one of the first philologists to scientifically investigate Sanskrit. His discoveries in comparative philology are generally recognized, and his merits in the philosophy of language will never be forgotten. By digging down to the philosophy of language he discovered the foundation of human nature and its characteristics, for he proved that the origin of language and the origin of reason are one and the same problem.

Max Müller's theory of the identity of language and thought found much opposition, partly because his definition of thought was not accepted, partly because the problem which was at issue was not understood. The problem was correctly stated by Noiré as "The Origin of Reason." Reason was generally supposed to be a creative power, a divine mysterious something which produced thought, language, science and art. The mystery of reason, however, can easily be explained, for the origin of reason is a very simple mechanical process; it is identical with that of language. The expression of man's feelings in words constitutes his thought. Without words no thoughts. Sounds are the best adapted mechanical means for the formation of

language, and thus the formation of speech is the mechanism which produces reason.

The problem was not to find the similarity of animal language and human language, of animal thought and human thought, of animal reason and human reason, but their difference. To find similarities is the first duty of the philosopher and investigator. The second duty of the scholar and scientist is to discriminate, and to discriminate is, in most cases, much more difficult than to find similarities. If we see differences we can appreciate similarities better and will be guarded against taking them as identities.

The merit of this discrimination is Max Müller's work, and all his books contain explanations and corollaries of his leading idea, that man *thinks* because he *speaks*.

Noiré has published a book (*Max Müller and the Philosophy of Language*. London: Longmans, Green & Co.) of which he says in an introductory note:

"In my book on 'The Origin of Language,' before proposing my own solution of the great problem, I endeavor to trace its historical development from the earliest times down to those latest achievements of scientific research upon which my own theory is founded, and without which, indeed, its conception would have been impossible.

"In this summary, as I have since become aware, I was far from doing justice to the great merits of Max Müller and the researches by which he has cleared the way for future investigators. And it was to rectify this error that I hastened to publish in a German review, *Nord und Süd*, an article in which, to the best of my judgment and belief, the *sum cuique* was more equally apportioned.

"The serious importance and wide bearings of the subject have induced me to make this article, in an enlarged form, accessible to the English reader."

In this work Noiré shows in the first two chapters Max Müller's attitude in relation to the theory of development and to Darwinism in particular. Max Müller, who has, even in advance of Darwin, taught the doctrine of evolution, severs himself from the followers of Darwin and begins a critical attack, when, overlooking or dismissing off-hand man's real characteristic, reason and speech, they treat external causes and structural transitions as a sufficient scientific explanation of the greatest marvel of creation.

We excerpt from Noiré's book the most important passages. He says: "Reason, or the mental life of man, constitutes a new, specific distinction, without an exact parallel in any other part of nature, a differentiation which we must seek to derive from more general natural causes. \* \* \*

"The inner organic tissue, the means whereby the functions of reason are accomplished, is afforded by

\* In consideration of the importance of Sanskrit, which has been so helpful to establish the monistic view in the domain of philology, we shall publish in future issues of THE OPEN COURT a series of essays by Oldenberg, the well-known Sanskrit scholar, author of "The Life of Buddha," etc.



those mysterious entities which are called *concepts, conceptions, notions*, or, in Platonic phrase, *ideas*. They are the exclusive property of man. \* \* \*

"Concepts cannot be formed without the help of words. The sound, the word, is the body of the concept. Both are designated in Greek by the single word *logos*, which means 'word and reason.' \* \* The two *ratio* and *oratio* are one and the same, only conceived from different points of view; the one is the inner and spiritual, the other the outer and corporeal side. \* \*

"As formerly, Spinoza's great disciple, Goethe, formulated the fundamental monistic doctrine in the simple words, as indubitable as unambiguous: 'No mind without matter, no matter without mind,' so Max Müller with equal clearness and confidence: 'Without speech no reason, without reason no speech.' \* \* \*

"The debates as to whether thought and reason shall be ascribed to animals, to babies and to untaught deaf-mutes are merely verbal disputes and proceed from the fact that the words used have not had associated with them the clear and definite matter of conception which belongs to them, but are employed in a general, vague and misty fashion.

"A child knows as certainly before it can speak, the difference between sweet and bitter [i. e., that sweet is not bitter], as it knows afterwards (when it comes to speak) that wormwood and sugar-plums are not the same thing. A child receives the sensation of sweetness; he enjoys it, he recollects it, he desires it again, but he does not know what sweet is; he is absorbed in its sensations, its pleasures, its recollections; he cannot look at them from above, he cannot reason on them, he cannot tell of them."

"Similarly, Lazarus Geiger says: 'It is easy to see that blood is red and milk is white; but to abstract the redness of blood from the collective impression, to find the same notion again in a red berry, and, in spite of its other differences, to include under the same head the red berry and the red blood—or the white milk and the white snow—this is something altogether different. No animal does this, *for this, and this only, is thinking.*'

\* \* \* \* \*

"The power of abstraction, or having general ideas, Max Müller declares, is realized by means of language and language only, which is the exclusive property of mankind, in virtue of its humanity. That which is language seen from without is reason seen from within. It is the obvious mark of distinction between man and beast. The origin of human development can therefore only be elucidated by the discovery of the origin of language. And if we ask what new contributions have been brought to light from the material hitherto examined by comparative philology, in aid of this enquiry, 'The result,' says our author, 'if we look back on our former lecture, is this: After we had explained every-

thing in the growth of language that can be explained, there remained in the end, as the only inexplicable residuum, what we called *roots*. \* \* \* What, then, are these roots? In our modern languages roots can only be discovered by scientific analysis, and, even as far back as Sanskrit, we may say that no root was ever used as a noun or as a verb. But originally roots were thus used, and in Chinese we have fortunately preserved to us a representative of that primitive radical stage which, like the granite, underlies all other strata of human speech. Roots, therefore, are not, as is commonly maintained, merely scientific abstractions, but they were used originally as real words."

"What we want to find out is this: *What inward mental phase is it that corresponds to these roots as the germ of human speech?*"

Noiré calls the roots the linguistic germ cells, or *Ova*. *Omne vivum ex ovo*, all growth of language springs from these roots. "By their development and uninterrupted growth all the known languages of the world have reached their marvelous stature and become the body of reason and instrument of mind. By the help of these roots and their intellectual equivalent man has taken spiritual possession of the whole creation, as he, at the same moment, cast it in their mould and stamped it with their impress." \* \* \*

Max Müller rejects the theory of onomatopoeia as well as the interjectional theory. He ironically calls one the Bow-wow, the other the Pooh-pooh theory. He says in his "Ursprung der Sprache": "In the nature of the mind, as well as that of the body, there is no *saltus*; the one is developed out of as minute elements as the other." \* \* \* The inferences which Max Müller deduced from this important elementary truth are, in their main features, as follows:

"1. The sounds of language are at all times and everywhere significant. It is in virtue of this quality alone that they form a part of speech. The interjectional and imitative theories are herewith condemned.

"2. Nothing in language is dead that has not once been alive. This explains and sets aside the apparent exceptions presented by inflection-terminations, infixes, affixes and the whole formal apparatus of language. The word *fruchtbar* could not be formed unless the second syllable had a meaning, and though that meaning is lost to the feeling of contemporary speech, science shows us that it originally meant fruit-bearing.

"3. Language passed from the simplest beginnings—monosyllabic, primary roots—first to secondary and tertiary roots and then, through the luxuriant abundance of forms belonging to the polysynthetic or agglutinative stage, to the clearness and precision, to the wonderful richness of thought and expression belonging to modern and inflected languages. The cradle of speech is the goal of the science of language.



"4. The mental counterpart of roots are certain fixed rational elements, nearly all of the nature of *predicates*, though a few, the pronominal class, are *demonstrative*. And as the roots, considered as sounds, are phonetic types, so their rational counterparts in the mind are rational types; those are phonetical types, these conceptual types or rational concepts. These, we repeat, are the fixed forms or norms with which language, that is to say, rational thought, has stamped as its own the whole of creation.

"5. The original mental content of the roots, their earliest meanings, so far as comparative philology can trace them, prove to have been only sensible perceptions or impressions."

Noiré fully concurs with Max Müller, but he adds: "While all preceding writers on the philosophy of language, Max Müller and Geiger included, have followed the universal tradition in deriving language and thought from the passive element of PERCEPTION, I have entered upon the opposite course and affirm:

"Language is the child of will, of an active, not of a passive, state; the roots of words contain the *proper activity of men* and receives their significance from the *effects* of this activity in so far as it is phenomenal, i.e., visible. Human thought arises from a double root, the subjective activity, or the will, and the objective phenomenon which is accessible to the senses."

Max Müller has since expressed his full assent to Noiré's view.

#### THE DEVELOPMENT OF GENIUS.\*

BY LUCIEN ARRÉAT.

Monsieur Ch. Richet does not doubt that our "nervous psychic system" has the power of indefinitely preserving the memory of the shocks which it receives, and he writes:

"We can found great hopes upon the future of human intelligence. It seems that the concentrative power of the mind increases in proportion to the amount of knowledge. The activity of a muscle is increased by exercise, and the power thus accumulated is transmitted from generation to generation. In the same manner, undoubtedly, the power of memory is strengthened by exercise, and this increase may be transmitted by heredity."

This assurance is quite necessary, for the chamber already filled by our brains seems too small to be able to contain our new riches. One special study suffices, at this day, to occupy the entire life of man. He who prides himself on being a philosopher, cannot at the same time be a specialist. The generalities which he must know require the assistance of such a number of facts, and the study of psychology, particularly, involves the necessity for such an unlimited number of data, that

even for the most vigorous intellect a powerful memory has become indispensable to good work.

The Greek Dioscorides, who lived four hundred years after Theophrastus, mentions in his works only six hundred plants, and Laurent de Jussieu has defined a hundred families. It would seem then that the brain of a De Jussieu must have contained a greater number of images or representations than did that of a Dioscorides, and the brain of a Cuvier more than even that of Aristotle.

It is true that the scientists, and, above all, the classifiers of the present day, work a great deal with the pen; that they possess the "paper-memory" of which Montaigne speaks; that they employ general formulæ and abbreviate them, and this fact already would forbid our deciding whether the mental capacity of the moderns is really superior to that of the ancients. We would have to measure the crania and weigh the brains before we could decide this question.

Nevertheless, the moderns, if they lack quantity in representation, oftentimes possess the advantage of quality. The most learned doctors of ancient Sorbonne had their heads crowded with facts of no real value whatever, and the metaphor could be applied to them that "the most precious jewels are found in the smallest caskets." Our earliest notions in the brain are like centers of production, and the false ideas as well as the chimære of rational frivolity generate a pathological condition which invades and finally destroys the organ of thought, while genuine information and true ideas infinitely strengthen it.

I have not sufficiently studied the gift of genius to speak of it with perfect knowledge. I shall nevertheless be obliged to explain its final ruin by the diseased growth of certain germs, whose monstrous vegetation chokes in its most beautiful hour of bloom the philosophy, the poetry, and the art of genius.

But the quantity of facts which are in the brain only aid genius; they do not constitute it. That which distinguishes genius is a rare activity and a marvelous power of discovering relations between facts hitherto unperceived and the knowledge of which is most fertile in new thoughts and sentiments in the domain of science or in that of art. The increase of a knowledge of facts does not, then, necessarily indicate a growth of scientific genius, and the diminution of egoism does not necessarily entail an increase of morality.

If we abandon egoism by attaching our interest to something else than ourselves, the number of the external objects is of scarcely any importance, and the extension of our sympathies to larger groups does not give us the exact measure of our moral progress. A fine German thinker, who is of French descent on his father's side, Mr. Julius Duboc, has made this remark. I would only like to complete his thought by distinguishing between our ability and its effects.

\*Translated from the French in *Journal d'un Philosophe*.



In the domain of art, the man of Vézère who engraved and so finely retouched the profile of the head of a mammoth on an ivory *plaque*, which is now in the museum, was a pre-historic Phidias, for in art the social conditions are most influential.

In the intellectual domain, the progress is evident, judging by the results and the accumulation of discoveries; but we cannot so plainly see that Newton was superior to Archimedes, and a savage Archimedes would limit the use of his genius to discovering the manner of cutting stone or of shaping flint.

Neither does our power seem to have increased materially in the domain of morals: I mean the power to accomplish a sacrifice commanded by duty; but the sacrifice has in a great many cases become easier, perhaps more habitual, and it seems that the sail of our will spreads itself of its own accord to the good wind.

If, now, the Greeks have originated abstract science, which the Chinese, for instance, could not do, it is because they were endowed with greater genius, and an opinion based upon the appearance of the races forces us to admit at least some degrees of difference in their intellectual power. We must admit it in their artistic faculty and in their moral faculty, and then we could say that the power increases in man, but infinitely less quickly than the effects of this power multiply.

The doctrine of indefinite progress in our species, which appeared to be included in Monsieur Richet's thesis, could not be accepted without a correction as regards the perfectibility of individuals. The growth of the "retentive" faculty, it is asserted by this eminent scientist, does not mean the same as the growth of the rational faculty, and we may accordingly hold to the conviction that genius will continue to exist in humanity without necessarily insisting upon its eventual expansion.

#### DETERMINISM AND FREE WILL.

Two views have ever stood opposed to each other in the realm of religious and philosophical questions, the one claiming absolute determinism as a matter of course for all phenomena of nature and life, human actions not excluded; the other maintaining that whatever be the claim of determinism in the province of physical science man's actions are *not* determined, for man is endowed with free will. The former opinion is generally considered as the scientific view; the latter as the moral or religious aspect.

It is apparent that the very existence of morals and religion depend upon man's having a free will, and at the same time determinism full and unrestricted without any exceptions is the condition, the *sine qua non* of science. Prof. James, in his reply to Prof. Giżycki's essay, reveals to us the basis upon which all dualism and with it indeterminism stands; it is the *ought* in our breasts, it is our moral consciousness which we gladly

confess, it is an undeniable fact. And this *ought*, or as the great sage of Königsberg calls it, the categorical imperative in us, postulates that man is a moral being and that he has a free will; and this free will, men of a dualistic bias think, is irreconcilable to the idea of the One and All, to the doctrine of monism.

Dualism, which takes the view that two worlds exist independent of each other, the spiritual world and the material world, does not object to determinism in the material world, but it vigorously maintains that free will obtains in the spiritual world.

Materialism in opposition to dualism claims that freedom of will is a sham, that man has no free will, because his actions are determined throughout by law.

If dualism is right, scientific truth has very little value, for science exists only because natural phenomena are, by strictest necessity, determined with regularity, and do not happen according to hazard or chance. If materialism is right in saying that man's freedom of will is a self-delusion, it would be ridiculous to speak of morals, and ethics (the science of morals) would be a contradiction.

Prof. James takes the dualistic view. He says:

"We postulate indeterminism in the interests of the reality of our moral life just as we postulate determinism in the interests of that of our scientific life."

We are certainly in favor of reconciling "moral life" and "scientific life." We even believe that they were never at variance; they coincide in part. (This, by the bye, is the reason why we speak of the Conciliation of Science with Religion and not of a *Reconciliation*.) But Prof. James' conciliation is a mutual annihilation. Science and Ethics play the part of the famous Kilkenny cats. The moral view and scientific view are two different aspects, howsoever their object may be one and the same thing. A psychologist, a physician, or a lawyer may view the actions of a man from a scientific standpoint, and a clergyman or a historian, or a biographer, or the critic of an author may contemplate the very same actions from a moral standpoint. Should we then, in the former case, take to determinism, and in the latter to indeterminism, or shall we by excluding human actions from the province of determinism, entirely annihilate ethics as a science? And if no science of morals exists, how can we have chairs for "professional moralists" at our universities?

Monism accepts determinism wholly and fully. But from the same standpoint of monism, free will must also be accepted as the basis of moral life. We deny that the issue is determinism *or* free will; in opposition to spiritual and material dualism, we claim determinism *and* free will. We maintain that moral truth and scientific truth, that religion and science, regularity according to law, and free will are no irreconcilable contradictions. They are oppositions complementary to and explanatory



of each other. If one is conceived without taking the other into consideration, our view will be one-sided and squinting. Both together form the monistic view, in which science and religion find their reconciliation.

Those who maintain that free will and determinism are irreconcilable contradictions start from the apparently slight but important error that force and necessity are identical. They think that what happens from necessity suffers from force somehow. They overlook the fact that there is a necessity from force which is effected as if by a mechanical pressure from the outside, and an inner necessity from free will which works with spontaneity according to the character of a man by free decision, but at the same time of necessity. For instance, a man delivers to a highwayman his valuables because he is forced to do so by threats or even blows; he suffers violence; his action is not free. But if a man, seeing one of his wretched fellow-beings suffering from hunger and cold through extreme poverty, and overpowered by compassion gives away all he has about him, this man does not suffer force. He acts from free will, but being such as he is, he so acts of necessity according to his character.

In my pamphlet, *Monism and Meliorism*, the problem of free will is treated in section v, § 1-3. In § 1, the hedonists or utilitarians are contrasted with men of religious bent, and in § 2, their differences are stated and discussed:

"Religionists usually adhere to the dogma of free will, while the hedonists do not accept this doctrine, but proclaim it to be in contradiction to the unyielding law of causality. It is the third of Kant's antinomies. The religionists take the positive side of the *thesis*, and the hedonists the negative of the *antithesis*. If there were no freedom of will, ethics would not exist, for it is freedom that implies the responsibilities for one's actions.

"Now, according to the law of causality, the actions of man result through the same necessity as any event or phenomenon. It is a strange confusion to make of necessity and freedom a contradictory opposition, so that either would exclude the other. If a man can do as he pleases, we call him free; but if he is prohibited from following motives which stir him, if by some *restraint* or *force* he is limited, he is not free. But every man, if he be free or restrained under a certain condition, under exactly these and no other circumstances must, of necessity, will just as he does will, and not otherwise. As to this there is no doubt, if causality is truly the universal law of the world.

"The confusion from which so many errors arise, is due to the similarity of the concepts *force* and *necessity*. Force may lay a restraint on free will. Where force rules, free will is annihilated. Necessity, however, is no force. Whoever is unable to make this distinction, will never get a clear insight into the theory of free will. Necessity, in such a case, is the inevitable sequence by

which a certain result follows according to a certain law. It is the internal harmony and logical order of the world. Force, however, is an external restraint, and a foreign pressure exercised to check and hinder by violence. Give the loadstone freedom on a pivot, and it will, of necessity, turn toward the north, according to the qualities or properties of magnetism. But if you direct it by a pressure of the finger to some other point, you will exercise some force, which does not allow it to show its real nature and quality. Were the loadstone endowed with sentiment and gifted with the power of speech, it would say in the first case: 'I am free, and of my free will I point toward the north.' In the second case, however, it would feel that it is acted upon and forced into some other direction against its nature, and would declare its freedom to be curtailed.

"It is the same with man; and the moral worth of a man depends entirely upon what motives direct his will. An ethical estimate of moral actions is not possible, except under the condition that they are the expression and realization of free will. The best action would amount to nothing if it were a mere chance result which might have occurred otherwise. The whole value of any moral deed rests on the fact that the man *could not*, under the conditions, act otherwise than thus, that it was an act of *free will*, and, at the same time, of inevitable necessity."

The actions of free will are just as much regulated by law as any other natural phenomena. The moral *ought* certainly involves *can*. Two men under the very same conditions *can* act differently; but a man of a certain character and under certain conditions, if he is free, will necessarily act in accordance with his character and not otherwise. The actions of a man who is not free, whether they are good or bad, have no moral value. Freedom is the *sine qua non* of morality and moral responsibility. But an action which does not result of necessity, which happens by chance, like a play at dice and might have been otherwise, has no moral value either.

And if the free actions of man were not regulated by law, if free will meant that a man of certain character under certain conditions could act otherwise than he does, if free will were identical with chance, if, in a word, free will were indeterminism, this kind of free will would not only destroy science but morals and ethics also.

Free will and determinism do not exclude each other. Free will is a postulate of morals, determinism is a postulate of science. The actions of a free will are not irregular or without law; they are determined by the character of the acting man.

Indeterminism is unthinkable in science as well as in morals; it would make every action a morally indifferent and scientifically indeterminable phenomenon. P. C.



## SONG.

MAY DAY WISHES.  
TO LOUIS BELROSE, JR.

My baby boy, were life's annoy  
By wishing warned away,  
Good-luck would shower bright snow-flower,  
On this your first of May.

No leaf at all would ever fall  
To mark the passing year;  
But Time would bring with every spring  
New bloom of hope and cheer.

The lips that tell your name so well  
Without a word—my rose—  
Would kiss the dew while life is new  
From every bud that blows;

But violet eyes, where now surprise,  
Turns ever to a smile,  
Would hold the star that guides afar  
Though wayward Love beguile;

Until the Sprite, one summer night,  
With moon upon the vale,  
And soft winds south, should turn your mouth  
From rose to nightingale.

If what I would were what I could  
Within those little ears,  
The laugh would meet a world's heart-beat,  
And sound of falling tears;

That breast would swell with truth to tell,  
And song I failed to sing,  
Till every word should, like a bird,  
Burst forth on fearless wing;

And armed with might to guard the right,  
Though strong to wield the sword,  
Those little hands would bring the lands  
To peace and one accord.

But, baby mine, come rain or shine,  
Despite the stars above,  
Each year will bring the flower of spring,  
And no year take my love.

## CORRESPONDENCE.

## PROFESSOR VON GIŻYCKI AND DETERMINISM.

To the Editor:

CAMBRIDGE, MASS.

I have read with interest the essay in your columns with which Professor von Giżycki has done me the honor to couple my name, and to which you invite me to reply. You surely wouldn't tempt me to plunge into the length and breadth of the free-will controversy, or to fight with my learned Berlin friend over points of detail. So, though I have to accuse him of hardly addressing himself to my main line of argument at all, I will just make one brief remark on his conclusion. [Let me say, by the

way, that my original article (the source of all this trouble) was called "The Dilemma of Determinism," and was published in the Boston *Unitarian Review* for September, 1884.]

Professor von Giżycki believes in determinism absolute and universal. Such determinism is, of course, monism. Every particular thing being pure effect, determined *ab extra*, there is no substantial reality except in the consolidated total, the One and All. Now any One and All which determines some of its features to be *bad*, is a morally irrational being. Those features *ought to be removed yet cannot be removed* so long as that One and All exists. *Ought* rationally involves *can*; and a frame of things which keeps the two asunder is a discord. It was to escape this moral discord in the absolute and total nature of things that I turned my back upon the One and All and postulated pluralism and indeterminism instead. Professor von Giżycki says we needn't turn our backs, but can escape the moral discord in the simplest possible fashion, thus: deny all moral character whatsoever to the One and All, and, of course, it can't be morally irrational any more than it can be morally rational. "Not being responsible," it is not a term of moral relations or an object of moral judgments at all. The latter are but elements of human psychology, anthropomorphisms having no connection with the world at large.

This attempt at exorcising moral irrationalism is pouring out the child with the bath with a vengeance. It is as if a judge should decide a lawsuit by ordering the goods in dispute to be burned. To save the monistic system, we are asked to give up the very notion of there being any *truth* in our moral sentiments at all. One could understand this from a commonplace materialist, but for a professional moralist like Professor von Giżycki, it is a queer attitude to take contentedly. Rather than put up with such a despairing solution, one would expect a man with any sense for the reality of morals to keep the ball of uneasy speculation rolling, to live on the ragged edge, to gnaw the file forever.

It is certain that mankind at large will never take as a satisfactory terminus for thought the notion of a One and All, which is the deepest reality, but which is either immoral, or if moral, morally absurd.

None of those evils of indeterministic pluralism which Professor von Giżycki depicts are quite as bad as that. We claim indeterminism, we claim that good things were *possible* where bad things now are, in the interests of moral activity, just as we claim determinism in the interests of scientific activity. The result must probably be a concession on the part of the *universal* claimer of some of its claims. Indeterminism is no universal claimer. It only asks to exist *somewhere* in the world; and this claim is incompatible with the existence of an absolute One and All—I see, by the bye, that you, Mr. Editor, propose "THE ALL" as an object of worship, and even of "imitation." If nothing will satisfy you but that amazing object, a noun of multitude, don't you think that "THE HALF" will work rather better than "THE ALL"? Indeterminism is practically contented with the half, or even much less.

WILLIAM JAMES.

[Professor James calls the "One and All so far as it determines some of its features to be bad, a morally irrational being." And in another passage he says: "It is certain that mankind at large will never take as a satisfactory terminus for thought the notion of a One and All, which is the deepest reality, but which is either immoral, or if moral, morally absurd."]

Ethics does not deal with the morality of the One and All, nor with the morality of a God beyond the limits of the universe. The "One and All" being as it is the sum total of reality or existence, cannot properly be called moral or immoral; to say that it is morally indifferent would be still more incorrect. We might just as well in hygiene speak of the health of the One and All as in



ethics of its morality. And it would be wrong at the same time to declare that nature and the laws of nature are hygienically indifferent and have nothing to do with the rules of health. Ethics is a moral hygiene; it investigates and gauges all the actions of rational individuals, such as men are on earth. If such beings act in harmony with the All, and the laws of the All, we call them moral; if they act contrary to the All and its laws, we say that they are immoral.

Prof. James seems to overlook that monism teaches the immanence of force in matter, of God in the All, and of causality in phenomena. He says: Not every "pure effect" must be "determined *ab extra*." Effects determined *ab extra* may be properly called mechanical effects. The action of a free will is irrevocably determined, but it is determined *ab intra*, not *ab extra*. The necessity *ab intra* is called moral freedom, the necessity *ab extra* is force. The monistic God is *vis ab intra*, he is immanent; the supernatural God is *vis ab extra*, he is transcendent. Only the immanent God of monism can afford a satisfactory conception of moral responsibility, as Goethe says (according to Dr. Lindorme's translation in OPEN COURT, p. 355):

The God whose being in mine shadows,

Can rouse my soul to active will;

The God whose throne's beyond my powers,

For purpose, will and deed is nil.

In reference to the conclusion of Prof. James' letter, I declare that, if worship is taken in the usual sense as an act of adoration, or a submissive cult of self-humiliation, I do not propose to worship the One and All. However, if worship is to signify what it does according to its etymology (Anglo-Saxon *weardscipe*), considering and bearing in mind the worth of something or of somebody, I do propose to *worship* the One and All. We should fully appreciate its import for our lives, and for those who shall live after us. Such a worship is one "in spirit and in truth."<sup>1</sup> It will keep us in harmony with humanity as well as with this One and All itself. About "the half" with which Professor James is contented, we shall speak on another occasion when we discuss the idea of God.

The editor's view of determinism and free will is found on page 887 of THE OPEN COURT. EDITOR.]

## BOOK REVIEWS.

OUTLOOKS ON SOCIETY, LITERATURE AND POLITICS. *Edwin Percy Whipple*. Boston: Ticknor & Co.

This volume of essays from the pen of one of the most accomplished and brilliant writers of English in his day, is made up of fugitive pieces gathered from the magazines and other sources where they were first published, and, we believe, a few posthumous pieces. We should have been glad if an editorial word had been preface to the contents of this volume to give the reader a somewhat better idea of the date and circumstances under which these essays were first written. We recognize the "Hardhack" contributions as of *Atlantic Monthly* origin, if our memory serves, and also a few others, as the essay on "Domestic Service" and "The Swearing Habit." We recall the fresh delight and stimulus we used to receive in the reading of Whipple, and are conscious, in the re-reading of portions of this volume, of a faded glow and inspiration, but this is the experience incidental, in a measure, to the second perusal of all works and authors that were our early favorites. There are a number of political essays in this volume which will doubtless prove useful reading to the new student of the troubled era of President Johnson and reconstruction, but which seem of a rather time-worn character to the general reader. Yet the lover of Whipple, who has won his admirers worthily, will wish to add this latest collection of his writings to the rest.

C. P. W.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XII.

### THE DEPARTURE FROM THE ESTATE.

Autumn had come; the trees about the house had assumed their colored dress of decay, white webs hung over the stubble and the dewdrops lay upon them till the wind tore them and bore them from field and valley into the blue distance. A happy pair went hand in hand about the place. This year the fall of the leaf did not affect the Professor, for a new spring had begun in his life; and his happiness was written in his countenance in characters which might be read by the most unlearned.

Ilse was betrothed. Modestly she bore the invisible crown which, according to the opinion of the household and neighborhood, now encircled her head. There were still hours in which she could scarcely believe in her happiness. When she rose early from her bed, and heard the trailing of the plough, or when she stood in the dairy amidst the clattering of the milk pails, her future appeared like a dream. But in the evening, when she was sitting near her beloved one, listening to his words and conversing on subjects serious and trifling, she would lay her hand gently on his arm in order to assure herself that he belonged to her, and that for the future she would enter into the life in which his spirit moved.

The marriage was to take place before the winter, and before the lectures began at the University; for the Professor had petitioned against a long engagement and the father had yielded.

"I would gladly have kept Ilse with me over the winter, for Clara must assume a portion of her duties, and the guidance of her sister would be very useful; but it is better for you that it should be otherwise. You, my son, have proposed for my daughter after a short acquaintance, and the sooner Ilse accustoms herself to the life of the city, the better it will be for you both; and I think it would be easier for her in the winter."

It was a time of happy excitement, and the necessity of providing for the new household brought down the feelings of the betrothed from their state of exaltation to earthly things.

The Professor made a journey to the University. He went first to his friend.

"Wish me joy," he exclaimed; "have confidence in her and me."

The Doctor embraced him and never left his side during his stay; he accompanied him in all his shopping and assisted him in the arrangement of the rooms. Gabriel, who, from the visit of the country gentleman had anticipated coming events, and who had become doubtful of his own indispensability, felt proud when the Professor said to him:

\*Copyrighted.



"Between you and me things remain as they were; do your best to make yourself useful to my wife."

Then came Herr Hummel; in the name of the family he presented his congratulations, and of his own accord offered the use of two rooms in his house which he himself did not occupy. But Laura was more anxious than all the rest about the new inmate. She burst forth in verse thus:

"How will she be, of sweet or lofty mien?  
Most dignified, or charmingly serene?  
My heart beats fast and thoughts in chaos seem!  
Will fond anticipations prove a dream?"

When the Professor begged of her and her mother to receive his future wife with friendliness and help her in her arrangements, and when he added to Laura that he hoped she would be on a friendly footing with his bride, he did not guess how much happiness he had given that young heart, which felt an unquiet longing to attach itself devotedly to some one. The indefinite descriptions which he gave concerning the character of his intended made a very vague impression which to Laura became a frame in which she daily depicted new faces.

Meanwhile the women were occupied in the old house preparing Ilse's outfit. The approaching marriage of her sister had transformed Clara into a young lady; she helped and gave good advice and in everything showed herself clever and practical. Ilse was praising this in the evening to her father and then threw her arms around his neck and burst into tears. The father's mouth quivered; he did not answer, but he held his daughter close to his heart. It fortunately happened that the last weeks before their separation were full of work and distraction. There was yet much to be done in the household and the father would not permit the betrothed couple to omit a single visit to his acquaintances in the neighborhood.

One of the first was to the family of Rollmaus. Ilse had informed Frau Rollmaus in a special letter of her betrothal; this had created great excitement. Frau Rollmaus triumphed; but Rollmaus had his horse saddled and rode to Bielstein, but not up to the house. At the gate of the court-yard he inquired for the proprietor, and rode to him in the field. There he took him aside and began his congratulations with this short question:

"What is he worth?"

The question could be satisfactorily answered and he seemed satisfied. For he turned his horse round, trotted up to the house and presented his congratulations to Ilse and her betrothed, whom he now looked upon as her equal, and this time he pressing repeated his invitation. After his return, he said to his wife:

"I could have wished a better match for Ilse, but the man is not so bad after all."

"Rollmaus," replied the wife, "I hope you will be have properly on this occasion."

"What do you mean?" asked the Crown Inspector.

"You must propose the health of the betrothed couple at dinner."

The husband growled. "Well, then, but without any useless trash-like oratory, or being overpowered by feelings; I will have nothing to do with that."

"The eloquence must be in the introduction," said Frau Rollmaus; "and if you will not do it I will undertake it myself, and you merely bring the health."

The house of Rollmaus displayed its finest table linen and dinner service for the visit, and Frau Rollmaus showed not only a good heart but good cooking. After the first course she clinked her glass and began excitedly:

"Dear Ilse, as Rollmaus, in proposing your health, will express himself shortly and laconically, I will just mention beforehand that as old friends of your parents, we wish you joy from our hearts. And as we have lived together as good neighbors, sympathizing both in misfortune and when there was an agreeable addition to the family, and as we have often rendered each other mutual assistance in household matters, it is very sad for us that you are going to leave this part of the country. Yet we rejoice that you are going to a city where intellect, and higher aims are appreciated. I will not be voluminous, therefore I beg of you both to remember us with true friendship."

She put her handkerchief to her eyes and Rollmaus expressed the family feeling generally in four words:

"Health to the couple."

At departing Frau Rollmaus wept a little and begged the proprietor to permit them to be at the marriage, though no other guests were to be present.

There was to be still another distraction. The Prince wished to stop on the way to his hunting castle and take breakfast in the old house.

"It is well, Ilse, that you are with us," said her father.

"But one does not know at all what such a person is accustomed to," rejoined Ilse, between pleasure and anxiety.

"His own cook will come over from the forester's house; he will help. Only see to it that he finds something in the kitchen."

It was a day of busy preparation, and the children, the housekeeper and the workwomen sat among heaps of branches and autumn flowers, twining wreaths and garlands.

"Spare nothing," said Ilse to the old gardener; "he is the beloved father of our country. We, his children, bring him our flowers as a tribute."

Hans, with the help of the Professor, arranged immense emblems and monograms of dahlias.

The evening before the hunt the purveyor and cook, with their attendants, arrived. The purveyor begged



leave to set the table in the garden. "The Prince will be accompanied by the necessary servants; the rest of the waiting may be done by the waiting-maids of the house. The country customs will please the Prince."

On the morning of the chase the proprietor rode in his best clothes to Rossau to receive the Prince, and the children thronged round the windows of the upper story, spying along the highway like bandits. Shortly before midday the carriage came up the hill and stopped at the door of the house. The proprietor and forester, who were riding on each side of the royal carriage, dismounted. The Prince descended with his suite, greeting them as he crossed the threshold. He was of advanced age and middle height; had a small delicate face, from which could be seen that in youth he had been considered a handsome man, with two intelligent eyes, beneath which were many small wrinkles. Ilse entered the hall and the proprietor introduced his daughter in his simple way. The Prince greeted Ilse graciously with a few sentences and favored the Professor, who was presented to him as bridegroom of the daughter, with some attention; whereupon the Professor was invited by the master of the hounds to join the party at breakfast. The Prince stepped into the garden directly, praised the house and the landscape and mentioned his recollection of having been here with his father as a boy of fourteen.

Breakfast passed off admirably. The Prince asked questions of the proprietor, which showed an interest in the condition of the country. When they arose from the table, he approached the Professor, asked particulars about the University, and knew the names of several of his colleagues. The answers and general demeanor of the learned man induced him to prolong the conversation. He told him that he himself was somewhat of a collector; he had brought ancient coins and other antiques from Italy and any increase in his collection gave him much pleasure. And he was pleased to find that the Professor was already acquainted with several of the more important ones.

When the Prince, in conclusion, asked the Professor whether he belonged to this country, Felix answered that accident had brought him here. It suddenly occurred to him that this was an opportunity, which might never recur, of making known to the highest power in the country the fate of the lost manuscript, and thereby, perhaps, gaining an order for further research in the residence. He began his account. The Prince listened with evident excitement; while cross-questioning him about it, he drew him further from the company and seemed so entirely engrossed in the affair as to forget the hunting. The master of the hounds, at least, looked at his watch often and spoke to the proprietor of the interest which the Prince seemed to take in his son-in-law. At last the Prince closed the conversation:

"I thank you for your communication. I value the

confidence which you have shown me. If I can be of any use to you in this matter apply directly to me; and should you happen to come into my neighborhood, let me know. It would give me pleasure to see you again."

When the Prince passed through the hall to the carriage he stopped and looked round. The master of the hounds gave the proprietor a hint. Ilse was called and again made her obeisance, and the Prince in few words thanked her for her hospitable reception. Before the carriage had disappeared from the farm-buildings the Prince again looked back to the house, and this civility was fully appreciated.

"He turned quite round and gave a look of peculiar interest," said one of the laborers' wives, who had placed herself with the working people near the evergreen arch by the barns.

All were contented and rejoiced in the graciousness and civility which had been given and received in good part. Ilse praised the Prince's attendants, who had made everything so easy; and the judicious questions of the Prince had pleased the Professor much; and when the proprietor returned in the evening, he related how well the chase had gone off, and that the Prince had spoken most kindly to him and had wished him joy of his son-in law before everybody.

The last day that the maiden was to pass in her father's house came. She went with her sister Clara down to the village, stood by the window of the poor Lazarus, stopped at every house and committed the poor and sick to the care of her sister. Then she sat a long time with the Pastor in his study. The old man held his dear child by the hand and would not let her go. On departing, he gave her the old Bible which his wife had used.

"I meant to take it with me to my last abode," he said, "but it will be better preserved in your hands."

When Ilse returned she seated herself in her room and the maids and workwomen of the house entered one after another. She took leave of each of them separately and spoke to them once more of what each had most at heart, gave comfort and good advice, and a small keepsake from her little store. In the evening she sat between her father and lover. The tutor had taught the children some verses; Clara brought the bridal wreath, and the little brother appeared as a guardian angel; but when he began his speech he burst out sobbing, concealed his head in Ilse's lap and would not be comforted.

When at bed-time they had all left, Ilse for the last time sat in her chair in the sitting-room. When her father prepared to retire, she handed him a candle. The father put it down and paced up and down without speaking. At last he began:

"Nothing shall be changed in your room and when you return to us you shall find it as you left it. No one



can replace you on this estate, neither to your brothers and sisters nor to your father. I give you up with sorrow to enter upon a life which is unknown to us both. Good night, my beloved child; Heaven's blessing upon you. God guard your noble heart. Be brave, Ilse, for life is full of trials."

He drew her to him and she wept quietly on his breast.

The following day the morning sun shone through the windows of the old wooden church upon the place before the altar. Again Ilse's head was surrounded by a heavenly radiance and the countenance of the man into whose hand the old Pastor laid that of his favorite beamed with happiness. The children of the house and the workwomen of the farm strewed flowers. Ilse, with her wreath and veil, stepped over the last flowers of the garden, looking heavenward. From the arms of her father and sisters, amid the loudly expressed blessings of Frau Rollmaus and the gently-murmured prayer of the old Pastor, her husband helped her into the carriage. Another hurrah from the people, one more glance at her old home, and Ilse pressed the hand of her husband and clung closely to him.

#### CHAPTER XIII.

##### THE FIRST GREETINGS OF THE CITY.

The leaves were falling in the woods around the city. Ilse stood at the window thinking of her home. The wreaths over the door were faded, the linen and clothes were stowed away in the presses, her own life glided on so quietly, while all around her was noise and bustle. Her husband was sitting in the next room over his work; no sound but the rustling of the leaves as he turned them penetrated through the door and at times the clattering of plates in the kitchen which was close by. Her dwelling was very pretty, but hedged in on all sides; at one side the narrow street; behind was the neighboring house, with many windows for curious eyes; toward the wood, also, the horizon was shut in by grey trunks and towering branches. From the distance, the hum and cries of the busy town sounded in her ear from morning till night; above were to be heard the tones of a pianoforte, and on the pavement, without ceasing, the tread of the passers-by, wagons rolling and loud voices quarreling. However long she looked out of the window, there were always new people and unknown faces, many beautiful equipages and, on the other hand, many poor people. Ilse thought that every passer-by who wore fashionable attire must be a person of distinction, and when she saw a shabby dress she thought how heavily life pressed upon the poor here. But all were strangers to her; even those who dwelt near, and could watch her proceedings on all sides, had little intercourse with her, and if she inquired concerning individuals, the inmates of her house could give but

scanty account of them. All was strange and cold and all was an endless tumult. Ilse felt in her dwelling as if she were on a small island in a stormy sea, and this strange life caused her much anxiety.

But, however gigantic and noisy the town seemed to Ilse, it was at bottom a friendly monster; nay, it fostered perhaps, rather than otherwise, a secret inclination to poetic feelings and to private courtesy. It was true that the stern burgomasters had given up the custom of welcoming distinguished strangers with wine and fish, but still they sent their first morning greeting through their winged protégés, which had already delighted Ilse's father. The pigeons flew round Ilse's window, crowded against the panes and picked at the wood till Ilse strewed some food for them. When Gabriel removed the breakfast, he could not refrain from taking some credit to himself:

"I have for some weeks scattered food before this window, thinking it would be agreeable to you to see them."

And when Ilse looked at him gratefully, he continued ingenuously:

"For I also came from the country, and when I first came to the barracks I shared my rations with a strange poodle."

But the town took care that other birds should become intimate with the lady from the country. On the very first day that Ilse went out alone (it was an unpleasant walk, for she could scarcely resist stopping before the showy shop windows, and she colored when people looked boldly in her face), she had found some poor children in front of a confectioner's, who looked longingly through the windows at the pastry; this longing look had touched her and she entered and distributed cakes among them. Since then, it happened that every noon there was a slight ringing at Ilse's door, and little children, in tattered clothes, produced empty cans, which were filled and carried home, to the great vexation of Herr Hummel, who could not approve of such encouragement to rogues.

When Ilse, on the evening of her arrival, was taken by her husband into her room, she found a beautiful cover spread over her table, a masterpiece of fancy work, and on it a card, with the word "Welcome." Gabriel stated that Fräulein Laura had brought this present. The first visit, therefore, on the following morning was made to those who occupied the lower story. When Ilse entered the sitting-room of the Hummel family, Laura sprang up blushing, and stood embarrassed before the Professor's wife; her whole soul went out to the stranger, but there was something in Ilse's demeanor that inspired her with awe. Ah! the much longed-for one was undoubtedly noble and dignified, even more so than Laura had expected; and she felt herself so very insignificant and awkward that she shyly received Ilse's warm thanks



and drew back some steps, leaving it to her mother to do the talking. But she did not weary of gazing at the beautiful woman and, in imagination, adorning her figure with the finest costumes of the tragic stage.

Laura declared to her mother that she would like to make the return visit alone, and on the first suitable day stole upstairs in the twilight hour with beating heart,—yet determined to have a good talk. But, as accident would have it, immediately after her arrival the Doctor entered, disturbing the peace, and consequently there was nothing but a fragmentary conversation, and hackneyed forms of speech which were very unsatisfactory. She took leave, angry with the Doctor, and dissatisfied with herself because she had found nothing better to say.

Since then the new lodger upstairs became an object of incessant and secret adoration to Laura. After dinner she placed herself at the window, watching for the hour when Ilse went out with her husband. Then she watched her from behind the curtains with admiration. She would often flit over the hall-way and about the door of the lodgers; but when Ilse appeared in the distance she would hide, or if she met her she would make a deep courtesy and, on the spur of the moment, could only think of ordinary things to say. She was much troubled lest her pianoforte playing might disturb her, and inquired at what hours it would be least annoying to her; and, one day when that nuisance of a red dog had snarled at Ilse and had maliciously bitten into her dress, she was so angry that she took her parasol and drove the monster down stairs.

In her mother's name—for she could not venture upon it in her own—she began a campaign of small attentions against the tenants of the upper floor. When vendors offered their tempting wares for the kitchen, Laura would frequently disappoint Herr Hummel's epicurean tastes; for she regularly sent the young geese and fat hens upstairs, till at last the servant, Susan, became so bitter at this preference of the lodgers that she besought the aid of Frau Hummel. One day Laura learnt from Gabriel that the Professor's wife had asked for a certain kind of apple; Laura hastened to the market and searched till she found a little basket of them and brought them home; and this time she compelled even Herr Hummel himself to send up the basket with many compliments. Ilse was pleased with these household courtesies, but did not guess the secret source.

(To be continued.)

Never value anything as profitable to thyself which shall compel thee to break thy promise, to lose thy self-respect, to hate any man, to suspect, to curse, to act the hypocrite, to desire anything which needs walls and curtains.—*Marcus Aurelius.*

Woman, once made equal to man, becomes his superior.—*Socrates.*

# The Open Court

PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRESIDENT. DR. PAUL CARUS, EDITOR.

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All communications should be addressed to

THE OPEN COURT,

Nixon Building, 175 La Salle Street,

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CHICAGO, ILL.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 34. (Vol. II.—8.)

CHICAGO, APRIL 19, 1888.

{ Three Dollars per Year.  
{ Single Copies, 10 cts.

## BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M. D.

Part V.

DIET—CONTINUED.

The study of the moral influence of diet, in its qualitative aspects, reveals equally suggestive, and not less strangely ignored, facts. No practical agriculturist would hesitate to admit that the adaptation of any soil for the production of special crops can be modified by the use of special fertilizers. No beast trainer would deny the fact that the energy, the intelligence, the docility, in short, the *psychological condition* of any animal can be influenced by a change of diet. But the exponents of human psychology persist in ignoring such factors of causation.

"For many years," says Herbert Spencer, "after men of science had become uniformitarians in geology, they remained catastrophists in biology; while recognizing none but natural causes in the genesis of the earth's crust, they ascribed to supernatural agency the genesis of the organisms on its surface. Nay, more, among those who are convinced that living things in general have been evolved by the continued interaction of forces everywhere operating, there are some who make an exception of man, or who, if they admit that his body has been evolved in the same manner as the bodies of other creatures, allege that his mind has been not evolved, but specially created."

The same fallacy of dualism still rejects the physiological basis of ethics. Even by independent thinkers, nay, by many of our foremost educational reformers, the "immortal soul" is still treated as an *alter ens*, an entity governed by laws so distinct from those of nature in general that a dietetic suggestion by a spiritual adviser would appear as irrelevant as a miracle legend in a treatise on marine steam engines.

The hyperphysical tendency of our established system of ethics continues to influence the fields of inquiry so long monopolized by its dogmatists, and yet the chief boast of that system, the alleged contrast between the patient meekness of its converts and the vindictive violence of unregenerate man, can be proved to be mainly a result of dietetic habits. At the court of the Guicovar of Baroda (British India), Captain Gordon Elliot saw a

"fighting horse," a special pet of the sport-loving prince's, who, by way of experiment, had fed a young stallion, at first on a mixed diet of chopped meat and oats, and finally almost on meat alone. Before the end of the third year the descendant of herbivorous ancestors had become a predatory beast of most aggressive tendencies. Without the slightest provocation he would rush upon every visitor of his den, beat down goats or dogs with plunging kicks of his forefeet, and devour their entrails with all the greed of a famished hyena. He also attacked other horses, and once killed a wild boar which a day before had vanquished a panther; and the fierceness of his onsets resembled the rage of a vicious bulldog, rather than the petulant caprice which now and then impels cart-horses to use their teeth on each other.

The naturalist Brehm, on the other hand, mentions the achievements of an Abyssinian beast-tamer who trained young leopards to associate with his pet baboons, and ascribes his success to the milk and durra bread diet which his speckled prisoners were obliged to share with their four-handed fellow captives. The best breed of Scotch shepherd dogs never taste meat and are permitted to suck a nursing ewe till their teeth grow strong enough to masticate hard cheese and oatmeal cakes. The smooth-skinned dogs which the Chinese have for centuries fattened for culinary purposes have undergone a curious metamorphosis of disposition. They are more gentle and submissive than the tamest spaniels, but seem to have lost their hunting instinct, and their timidity qualifies their value as watch-dogs.

There is no doubt that some tribes of the human race have degenerated in the opposite direction. The courage of the pluckiest varieties of our next relatives, the frugivorous four-hander, is purely defensive. The mischievous pranks of the strong-fisted chimpanzee always stop short of actual cruelty; the brutal treatment of a defenseless fellow-creature excites the shrieking protests of the same baboon who a minute ago amused himself with twisting the tail of his playmate. In his rough-and-tumble sports with his fellow pets, my young mandrill forbears to make use of his teeth, but if a couple of dogs engage in a *bona fide* fight, he is sure to rush in and part the combatants. It is more than probable that under normal conditions of development the human mind, too, manifests an instinctive abhorrence of cruelty. Children shudder at the gory scenes of a slaughter-

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house, and it is a significant circumstance that in nearly every known language the equivalents of the word *humanity* are used as synonymes of a merciful disposition. The paradise legends of the Semitic nations, and the traditions of the "Saturnian Age" of ancient Italy and Greece, preserve the memory of an era of horticulture and peace preceding the period of nomadic and predatory habits. The nature-abiding Greeks, with all their fierce hatred of despotism and love of warlike sports, were at heart averse to scenes of bloodshed, and when it was proposed to increase the attractions of the Panhellenic games by the introduction of Roman gladiators, the citizens of Athens and Corinth rejected the offer with the remark that the proconsul would first have to tear down the altars of mercy.

Man's entire system of physical organization bespeaks a frugivorous adaptation; but by the same means that transformed the disposition of the Baroda stallion, our North American Indians and the hunting tribes of southern Africa have become imbued with all the sanguinary instincts of beasts of prey. The murderous internecine wars of our American aborigines preceded the time when the intrigues of their Caucasian rivals fostered the causes of disunion, and were chiefly due to the same instincts of truculence that impels a mink to exhaust the chances of every favorable opportunity for slaughter; and the history of our western border wars abounds with the records of unprovoked massacres and inhuman butcheries of prisoners that might have been ransomed on terms which only a mania of bloodthirst could have induced needy captors to refuse. Gordon Cumming, Dr. Schweinfurth and Mungo Park agree in their accounts of the hideous cruelties which constitute the favorite pastimes of the carnivorous savages of central Africa; and it is a suggestive fact that all the meat-surfeited nations of the Caucasian race are characterized by a penchant for sanguinary sports. The neglect of agriculture and the abundance of cheap pasture grounds make animal food a predominant ingredient in the fare of the natives of the Spanish peninsula, and the *matanzas* (literally butcheries) of their bull-rings kindle an enthusiasm much more incomprehensible to their French neighbors than to their British fellow beef-eaters. In the border towns of the Spanish Pyrenees, *matanzas* have been almost relinquished in deference to the protests of French residents, while in Matamoras, El Paso, and other cities of the Rio Grande frontier, bull fights, though denounced by the Anglo-American press, are liberally patronized by Anglo-American spectators, a class of sightseers by no means limited to "cow boys" and border ruffians.

Carnivorous habits prevail both on the table lands of central Asia and in the jungles of the Sunda archipelago, and the blood feuds of the sluggish Malay are carried on with the same pitiless ferocity that marks the

border raids of the restless Turcoman. The Hindostan vegetarians, on the contrary, extend their blood-aborring humanity even to the lowest of their dumb fellow-creatures. With infinite patience the native fruit-planter of the Punjab will drive off a troop of pilfering monkeys again and again, rather than save themselves all further trouble by killing a few of the long-tailed marauders. In the suburbs of Agra, a British gardener who had shot and crippled a *kalong* (a frugivorous bat), was pursued by a howling mob, who finally cornered him in a side alley and with shrieks of execration shook the squealing harpy before his eyes. To the followers of Brahma, a "fox-hunting parson" is a preposterous anomaly. "The war-whoop of a prize-fighting nun," says an English writer, "would not amaze those rice-eaters more than the words of the Anglican rector who assembles his domestics for morning prayer, and then dons his shooting-jacket and calls out to his son: 'Say, Jack, get your shotgun; let's go and try and kill something.'"

Race influences have a share in the causation of such contrasts, but we cannot deny the race affinities of the fierce Tartar huntsman and the submissive vegetarians of the Chinese coast lands. The agricultural negroes of the lower Senegal differ in disposition from the carnivorous negroes of the upper Congo, as a rice-fed Shanghai dog differs from a Turkestan wolf-dog. A still more remarkable contrast is perhaps that of the *Indios bravos* and *Indios mansos* of northern Mexico. The "brave" redskins, including the Apaches, the Yaquis and scattered tribes of the Arapahoes, subsist almost exclusively on the products of the chase, and never fail to utilize a chance for murder and devastation. Colonel Ruxton's "Adventures in Mexico and the Rocky Mountains," details instances of barbarity which almost justify that bounty proclamation of a Governor of Chihuahua, who offered "a shot premium of five dollars for the skull of every wolf, Apache or puma, delivered at the office of the City Comptroller Hernandez."

The *Indios mansos*, or "tame Indians," on the other hand, subsist on brown beans and the produce of their banana gardens, and deserve their name by an ultra Buddhist patience of non-resistance. To the ruthless oppression of their Spanish taskmasters they opposed nothing but prayers, and on failing to accomplish their allotted task of gold-washing or log-hewing, would often travel thirty miles afoot to report for trial and its barbarous consequences. Professor Stevens, the explorer of Yucatan, mentions a perhaps unparalleled instance of self-abasement, practiced in a popular drama—a veritable passion-play—of the Pinto Indians. A crowd of shackled slaves congregate on the stage, rubbing their sores, and by mutual assistance succeed in removing their fetters. Huddling together in a corner, they compare notes on their experience, and the recital of their martyrdom at last develops the initial phase of a



conspiracy. Knives are sharpened and bow-strings fastened; but in the midst of these preparations a vulture-nosed and fierce-whiskered Spaniard appears on the scene, and by the discharge of a horse-pistol succeeds in frightening the malcontents into unconditional surrender, so effectually, indeed, that many of them crawl upon their hands and feet and submit their necks to the boot-heel of the bearded Castilian!

Yet the ablest ethnologist would fail to distinguish the skull, the complexion and the physiognomic characteristics of the long-suffering *manso* from those of his truculent kinsman.

Carnivorous habits engender aggressiveness, moridity (more or less modified by the influence of domestication), ill-will, vindictiveness and a peculiar restless disposition, often ascribed to quite irrelevant causes. Compare the zigzag trot of the captive panther and the impatient rushes of the captive hyena with the complacent attitudes of the captive deer, or the lazy good humor of the semi-vegetarian bear. In Polk county, Tennessee, I once attempted to domesticate a she-fox with a litter of cubs, and had frequent opportunities to study the effects of dietetic experiments upon the disposition of my prisoners. After a good meal of milk, bread and blackberries, the *materfamilias* would turn over on her back, playing with her youngsters for hours together, or dandling with a ball tied to the end of a whirling string. A meal of meat—even as much as the refuse scraps of a dressed rabbit—would set her trotting to and fro to the full length of her tether, every now and then giving her chain a spiteful tug and confirming such symptoms of ill-humor by vicious snap-bites at the heels of every passer-by. The influence of the stimulating diet seemed to react even on her progeny, for on meat-day her usually tranquil cubs would scamper up and down my veranda steps and often overcome their youthful timidity to the degree of climbing the fence and exploring the adjacent woodlands. Hence, perhaps, also the nomadic penchants of our North-American autochthones, and the *impulsive restlessness* (quite distinct from industrial enterprise) of our Anglo-American population, with their predilection for three daily rations of rich meats. The French peasant, with all his Gallic vivacity, never emigrates while his ten-acre patch offers him a frugal chance of subsistence, while the exodus mania of our farming population has carried thousands of families from the sylvan paradise of the southern Alleghanies to the alkali deserts of the Far West.

The character-type of carnivorous animals harmonize perfectly with the exigencies of their predatory habits. A nursing she-wolf, in quest of prey, has often to range the scant hunting-grounds of the wilderness for hundreds of miles, and the ferine aggressiveness of the Bengal tiger doubtlessly turns his dreadful work into a source of pleasure. But few moralists of the present genera-

tion would dare to trace the effect of analogous causes to their influence in aggravating the discords of temper and duty, of passion and precept, in the spheres of civilized life:

"Mel in ore, verba lactis,  
Fel in corde, fraus in facie,"

describes only the symptoms of a phenomenon not confined to the meat-gorged prelacies of the middle ages. "Alas, what avails all theology against a diet of bull-beef," writes Father de Smet from the Sioux missions; but our home missionaries seem agreed in ignoring the effects of cognate causes. The report of a recent convention of prison reformers mentions, however, a noteworthy remark of a Belgian delegate, who held that in the management of indoor workers a bill of prison fare prescribing a preponderance of meat rations, would be a refinement of cruelty, since the characteristic influence of such food would make the irksomeness of restraint an almost unbearable affliction.

#### THE FUNDAMENTAL PROPERTIES OF MATTER.

BY J. G. VOGT.

Translated from the German by F. W. Morton.

##### III.

We now proceed to the core of our investigation. If the organic world is a strictly bounded whole, if we can adduce proof that organic substance constitutes a definite, severed part of the world-substance, then by an arrangement of organic elements analogous to chemical elements it will surely be easy to make possible an explanation of organic phenomena. The difficulty and cause of confusion is, that organic substance, under whatever fluctuations, springs from inorganic and again returns to it. Indeed, we can even at will develop organic substance from inorganic; and daily we see organic substance fall again to inorganic.

This simple undeniable fact drives us with imperative necessity into the arms of a monistic view of the world, i. e. regarding all as *one*. Every fundamental property which we are forced to attribute to the world-substance in order to explain any phenomenon, must belong to *every part* of this world-substance, and therefore, according to an atomistic conception of matter, to *every separate atom*.

According to our conception of substance every center of condensation must evidently run the entire scale of feeling and be able to accommodate itself to *all* the phenomena of the world without exception. It can, therefore, play an equally correct role in both the great divisions, the organic and the inorganic realms.

If just now we found it impossible to deduce from the current physical or mechanical conceptions of matter the organic phenomena, so we find it likewise difficult to establish the monotonous regularity and lifelessness of inorganic substance from the old established conceptions of organic substance (according to which the in-



organic must be a sort of weathering product of the organic.) How can the kinetic philosopher explain how the atom of oxygen that, during millions of years, has rested in granite, passive and dead, suddenly becomes possessed of conscious feeling when it is afforded an opportunity of entering a brain cell? Or how, on the other hand, can biology explain how the atom of oxygen, to-day a part of a brain cell and possessed of conscious feeling, is to-morrow united with carbon and cast out as carbonic acid, again to enter the circle of purely physical, dead, mechanical processes?

None of the former conceptions of matter explain or establish the fundamental difference between organic and inorganic activity. Yet, this difference exists, and a consistent idea of matter must above all things take it into account.

In the work above referred to I have shown how the chemical elements, i. e. the old atoms, become groups of condensation centers, while the ether only springs from such original centers. Physics teaches us that all bodies, i. e. all material matter, can be reduced to three states of aggregation—gaseous, fluid and solid. Every chemical element can run the entire scale of condensation, and, according to our theory, likewise the entire scale of feeling, if the external conditions are furnished for it. Every atom by condensation can pass from the conscious feeling of life to the unconscious condition of repose.

In strict accordance with our theory, heavy, condensed matter, like the metals, minerals, etc., which approach near to the maximum value of condensation in the positive direction, will be excluded from all conscious feeling; their state is a thoroughly passive and lifeless one, in direct opposition to those substances which exist in a fluid or gaseous state of aggregation, which are susceptible of conscious feeling, and therefore play the chief role in the organic world. We know that carbon, oxygen, hydrogen and nitrogen principally form the structures of the organic world. If to them, even, in the course of time, the possibility of condensation, of transition to a solid state were offered, all manifestation of conscious feeling would cease, and the organic world would be destroyed. Our world, benumbed and rigid, would rest in endless sleep, at least until after æons, in the course of cosmical cycles, the stiffened masses should again be called to new life.

We thus see that it depends solely on the degree of density, or the state of aggregation of an atomic body, whether it can take part in the organic phenomena of life or not. And in strict accordance with actual facts, there prevails, according to our theory, no fundamental difference between an organic and an inorganic substance. Whatever be the fluctuations, the latter can pass from the former and back again into it. One error, however, we shall have to avoid, namely, that there is

a definite limit at which a tangible line of demarkation between organic and inorganic conditions of matter can be drawn. On the contrary, observation teaches us, and the principle of activity in the centers of condensation—that is, the unalterable striving, under all circumstances, for the maximum density—forces us to the assumption, that each atom in every state of aggregation, and therefore even under the highest negative fluctuation, must exclude an inorganic, i. e. a simply physical mode of activity. The higher the negative fluctuation of an atom, the more energetic are its vibrations of contraction; and I have shown in another place how in these vibrations of contraction on the negative side are to be found, above all, the impulse toward chemical unions. For example, an atom of oxygen which, in consequence of its high negative fluctuation, becomes possessed of conscious feeling can in the same or the next moment enter into a chemical union and therefore manifest a thoroughly physical course of action. The irresistible impulse toward condensation, however, impresses on every atom the sameness of the physical course and at the same time imparts to the latter the appearance of firm, unalterable regularity.

Now, while the physical or mechanical action of an atom necessarily takes it through all states of aggregation and degrees of density, we have on the other hand to assume a point somewhere on the scale of condensation at which the conscious feeling of an atom becomes extinct. It is, to be sure, impossible to determine this point even in the remotest way. We may, however, assume, that in the solid state of an atom this rise of manifest consciousness has been passed; indeed, that it may already have been passed in the fluid state; and that to the gaseous state alone belongs the real manifestation of consciousness. Accordingly, so far as it corresponds to the different degrees of density as exhibited in the centers of condensation, this scale of feeling would move in a negative direction.

In the work already cited I have shown how even in the gaseous state an atom may still traverse an immeasurable series of volumes, so that no especial difficulties would lie in the way of limiting the entire scale of feeling to the gaseous state. Yet this would not mean that all expression of feeling is to be relegated from the fluid state in which the maximum value of condensation is not yet reached; but, that in all probability these modes of feeling are no longer likely to possess that degree of brightness which produces consciousness and which the generation of organic activity demands. The same may also be true of many a degree of density in the solid state.

Now it may be justly asked: If the scale of feeling runs parallel with the scale of density of the gaseous state, if conscious feeling is joined with a high degree of negative fluctuation, must not the manifestation of



conscious feeling, on the other hand, be attributable to all physical and, especially, chemical processes, to which matter in the gaseous state is subjected? This thoroughly pertinent question leads us to the central point of our investigation, to the fundamental distinction between the inorganic and the organic forms of matter.

We have to imagine the contracting tendencies of the center of condensation as disturbed with so high an intensity that such a center, which suffers a negative fluctuation, seeks instantaneously to free itself from this. Thus in the shortest space of time, perhaps millions of these gradations, volumes of density, and, therefore, perhaps the entire scale of feeling, is traversed. I refer here for example to the chemical processes which I have exhaustively treated in another place (v. Force, *Chapter on Chemism*), and in which I have shown how the negative fluctuation or tension is driven to a corresponding height, until emancipation results and the chemical union, together with the accompanying condensation of the new atomic group, takes place *instantaneously*.

That perceptive actions of feeling come into play in all chemical and physical processes is therefore undeniable; but it must likewise be seen that in such a momentary traversing of the scale of feeling a distinct difference between the separate modes of feeling is not possible. These can attain to no marked conscious expression; the rapid succession of the degrees of the scale will yield only a vague product which excludes all individual feelings. This is seen in *all* mechanical processes or acts, for we know of no single instance where the reaction of the particles concerned would not be an instantaneous, explosion-like, momentary one. Indeed, upon this instantaneous reaction of the minutest particles from every mechanical impact depends the velocity with which light, electricity, sound and heat are transmitted.

The manifestation of a clearly and distinctly marked conscious feeling, on the other hand, demands exactly the opposite, i. e. a *constant* permanency in a definite degree of density. When, for example, the conscious product of feeling must come to expression as *red*, it is clear that the center of condensation must *continually* maintain that degree of density which corresponds to the mode of feeling, *red*. If this degree of density is of but momentary duration, it is self-evident that the sense-product *red* cannot attain to permanent consciousness. All our actual feelings, however, are characterized by such permanent and therefore sharply distinguished conditions of feeling.

When I speak, therefore, of the mechanical conditions of sense-perception, only such are to be understood as, in direct opposition to all physical or mechanical processes, maintain a *permanency* of a certain degree of density, of a certain condition of activity. Our conscious feeling does not arise by impacts of separate feelings, which are separated from one another, so to speak, by

unconscious intervals of space; but it represents a *continuum*, a continuation of an unbroken *state of activity*.

The fundamental characteristic of the inorganic processes, as distinguished from the organic, consists in this, that while in the former the activity of the particles concerned is always a momentary one, in the latter this activity is a *continuous* one. In the inorganic processes the condition or state of repose, after its expiration, is again striven for and attained; in the organic processes, on the contrary, this state is never reached. I say expressly, in the organic processes this state of repose is never reached. For, if conscious feeling is dependent upon the highest degrees of negative fluctuation in a center of condensation, it is clear that in the negative fluctuation all feeling is *forced upon* it. The negative fluctuation can never be *striven for*; it must always be *impelled or forced toward*. And with it also the manifestation of feeling.

In unmistakable accordance with this we meet in the organic world, as one of its fundamental features, the desire for rest, for inactivity. Life is *forced* upon our planet. If the boundless light and heat of the sun did not uninterruptedly necessitate the high negative fluctuation, all life would immediately vanish from the face of our planet. Nay, further, the temporary absence of the sun's rays during night is sufficient to crown this striving for rest in the organic world with temporary success and banish conscious perception. Feeling, life and activity are forced upon organic matter, and it must not surprise one if, on such a fundamental basis, even with us human beings the condition which we designate as *dolce far niente* exerts such an irresistible charm. The strife for rest is a peculiar feature of the whole animal world.

#### AN ENGLISH MONIST.

BY XENOS CLARK.

To those who understand clearly the present intellectual drift of the world, there is something amusing in the tenacity with which religious sectarians still contest their minor battles. While the whole theological ship is in flames, and intelligent people everywhere are looking for their life-preservers, we see these contentious passengers engaged in disputes over their state-rooms. "Never mind your state-rooms," one feels like shouting in their ears; "unless something happens the whole ship will be gone presently."

One need only refer, for illustration, to the Andover controversy, in which the leading orthodox sect of the country is divided against itself on the question whether there is probation in the future life for the unenlightened heathen. Probation in the future life, indeed. Unhappy disputants, who do not see that while they fight for the branch the whole tree has disappeared! For who among men now-a-days can say that there *is* a future life?



When filled with weariness by the spectacle of such contentions as these, it is with gratitude one turns to a writer who deems it his office to put aside disputed points, and to ask whether there are not some matters on which, despite the current skepticism, all good and intelligent men can unite in belief. "The author is one of those simpletons," says Professor Seeley of Oxford, in the preface to his *Natural Religion*, "who believe that, alike in politics and religion, there are truths outside the region of party debate, and these truths are more important than the contending parties will easily be induced to believe." And Professor Seeley goes on, in his interesting book, which is certainly of the ablest, to elucidate these "truths outside the region of party debate."

I say Professor Seeley's book is of the ablest, but the characterization is imperfect. Beyond question his *Natural Religion* is the most acute, the most novel, as it is also the most solid, the most instructive, and the most really helpful contribution that modern liberalism has made to literature. I do not think anyone who has read the work will call this over-praise. It should be added that it is also a book of special interest to readers of this journal, since in his attempt to find a "common basis of belief for all thoughtful men," Professor Seeley has adopted a form of monism which has many resemblances to that advocated by THE OPEN COURT. Some of these resemblances it is my present purpose to point out, though I cannot hope to do anything like justice to a work which is too compact with thought to permit a summary that shall be both brief and satisfactory. It must suffice, at present, simply to make a statement of Professor Seeley's main theological position, to outline his new idea of a Deity; an idea so broadly conceived that its author thinks no man, be he scientist or theologian, can refuse acknowledgment.

This Deity whom Professor Seeley thinks all men can unite in acknowledging is, to begin with, not a theological abstraction by any means. It is the Universe seen in its order and oneness, and especially in its oneness. However they differ on other points, he believes all men can join in worshipping a "unity conceived in one way or another as holding the universe together," since this unity is an obvious fact, taught by all science and observation. In truth, the most striking thing about Nature to a reflective mind, is its unity, the fact that it coheres in one vast, orderly whole. We are so used to the spectacle that we grow indifferent to it; we search afar for a god when here one stands obvious to our eyes. Now, the author of *Natural Religion* contends that this wonderful unity of Nature can take the place of God; contends even that it is a "greater Deity than the average Christian worships." And why, he says, should we not call it God, since it can take the place of God—since we can look upon it with adoration and fear, can indeed worship it? "Men slide easily from the most

momentous controversies into the most contemptible logomachies. If we look at things, and not merely at words, we shall soon see that the scientific man has a theology and a God, a most impressive theology, a most awful and glorious God. I say that man believes in a God who feels himself in the presence of a Power which is not himself and is immeasurably above himself, a Power in the contemplation of which he is absorbed, in the knowledge of which he finds safety and happiness. And such now is Nature to the scientific man."

We should misunderstand our author, however, if we attributed to him, on account of the above paragraph, a desire to re-establish the old theism of the churches. By what he calls God he simply means the unity of Nature. We might call it Nature, instead, he says, but since the word "Nature" does not arouse in us thoughts of worship and devotion, and since the word "God" does, the latter is preferable to a writer who is seeking to arouse religious rather than skeptical thoughts.

The wonderful unity of Nature is therefore the new deity to whom Professor Seeley would lift men's eyes in the present days of doubt. Science has come, theology has fallen before it, and the world is Godless, men have exclaimed. "Not so!" cries this new voice. "Science itself has revealed to us a Deity—yes, a grander and greater one than we have ever known before!"

The skeptical will ask what there is in this Unity of Nature that entitles it to this new role; what are its credentials; wherein is it aught save a mere phenomenon, like the rest of Nature? The unity of Nature is not a mere phenomenon, because it holds phenomena together; because without it Nature would be a drifting chaos, while with it it is an orderly and interdependent whole. With this Power that unifies phenomena, that makes the All, we are but poorly acquainted, but that does not contravene its evident existence, or make it less awe-compelling. It is a Power which men can worship, since, on the one hand, its proportions are so vast and wonderful, and, on the other, it is so intimately and beneficially interwoven with all the processes of human life. "But it is not merely because he realizes a stupendous Power that I call a scientific man a theist. A true theist should recognize his Deity as giving him the law to which his life ought to be conformed; and there is no stronger conviction in this age than the conviction of the scientific man, that all happiness depends upon the knowledge of the laws of Nature, and the careful adaptation of human life to them."

The Power that gives unity to Nature, that makes it One, can therefore be worshiped because it supplies to man the law of life. It can be worshiped also because its manifestations are infinitely interesting and beautiful. "He who studies it has continually the exquisite pleasure of discerning, or half discerning, and divining laws; regularities glimmer through an appearance of con-



fusion; the mind is haunted with the sense of a vast unity not yet discoverable or nameable." And finally, the unity of Nature is to be worshiped because we have a personal relation to it, because our own lives, our own minds, belong to and come from this mysterious Power, and are a part of it.

It will thus be seen that *Natural Religion* would not have us worship Nature simply as Nature in the poetical sense. Not because of the flooding sunshine, the strong mountains, the calm stars, does science call us to the worship of its new Deity. But because sunshine and mountains and stars, and all the wonderful things that are, do not live apart, but are bound together in a yet more wonderful *Whole*. They are these separate words, the Whole is the complete and pregnant sentence. We have not read the sentence yet, but who has not felt that its meaning may be something vast and deep, beyond all our ken?

(To be concluded.)

#### MAKING SCARCITY.

BY WHEELBARROW.

Some time ago I made a few remarks upon that "competition" hobgoblin, which makes the hair of workingmen stand up in fright, "like quills upon the fretful porcupine." From my boyhood, it was a terror to me, but it does not scare me now. As I grew older I grew bolder, and at last I walked close up to it and examined it. I found it was a hollow pumpkin, with eyes, nose and mouth cut in it, and stuck on a stick clothed in the drapery of a white sheet. I see that the President of the Federation of Trades Unions has exhibited this venerable old ghost to the Senate Committee on Education and Labor. Whether it scared the committee or not I cannot say. Since then I have noticed that some other gentleman has appeared before the same committee, in company with the same specter, and demanded that convict labor shall not be put in competition with the mechanic trades, but shall be exclusively devoted to the business of "working on the roads."

I have tried to analyse the principle of non-competition, as enforced by the trades unions, and so far as I have been able to resolve it into its constituent elements, its chief ingredients appear to be monopoly and selfishness, with some very foolish dread of the evils of abundance. Take this convict labor question for example. Convict labor is not opposed on any ground but that of "competition." It competes with outside labor, that is, it produces something, and this production is the injury complained of. Let us reduce the question to a concrete form. Suppose that the two thousand convicts in the penitentiaries of Illinois are all compelled to work at the shoemaking trade, and suppose that they each make a pair of shoes a day, or 62,400 pairs a year, will it be contended that the addition of this number of shoes to the common stock is an injury to the people of Illinois?

There is no one who will claim that; but the President of the Federation will say: "It is an injury to the shoemakers' trade, and therefore it ought to be prevented."

Very well, then make tailors of the convicts. This plan doesn't solve the difficulty either, for the tailors won't agree to it, nor the tinkers, nor the tanners, nor the masons, nor the carpenters, nor any other trade. As the butcher, and baker, and candlestick-maker all refuse to work in competition with the convicts, and as none of these economists are daring enough to require that the convicts live in idleness, an easy solution of the problem is found by compelling them "to work upon the roads." But really this is only shifting the difficulty, and is no solution at all. At school I have solved many a hard problem in long division, which is as far as I went, by getting some other boy to do the sum for me, and the President of the Federation adopts the same plan with the convict labor difficulty. He dumps it on the "laborer" class, and says: "Here, you man with the wheelbarrow, work this hard sum." But I am not able to work it, because I find that I cannot set the convicts at any useful employment without putting them in competition with somebody. They must either live in idleness at the expense of the community, or they must earn something to pay for their board; to earn something they must produce something, and that is an addition to the aggregate wealth of the people, at which we all get a nibble at last.

If adding to the wealth of the country is an injury, then subtracting from that wealth must be a benefit, and therefore the destruction of shoes and clothes, and houses and furniture, must be a desirable thing; the Chicago fire, instead of being a great calamity, was a great blessing. This fallacy is firmly cherished by workingmen; it is the guiding principle of trades unions, and is productive of want and poverty incalculable. It was instilled into me in my very childhood, and it was late when I got rid of it. "I never ate a meal, when a boy, that was not somehow or other complicated with the everlasting consideration of 'work.'" When I got a good dinner I knew that my father was "in work;" when the meal was scanty I knew that he was "out of work." In our home all human affairs whirled round and round the image of "work" forever. A big fire devoured a street—"It will make work," I heard my father say. A ship was lost at sea laden with silk, and leather, and cloth—"It will make work," said my father. A reservoir broke jail and swept the heart of the town away—"It will make work," my mother said; and so all human calamities were softened as blessings to me; they made work, and work made wages, and wages made bread and potatoes and clothes for me. God bless the shipwreck, and the fire, and the flood; they make

"Work, work, work, till the eyes are heavy and dim,  
And work, work, work, till the brain begins to swim."



Oh, comrade of the trowel, the needle, and the awl; oh, toiler at the anvil and the loom; oh, brother of the jackplane and the shovel; oh, chivalry of toil by land and sea, it is not work we need so much as rest. Let us make all the wealth we can, and destroy nothing; let us not be jealous of each other's talent, but teach each other everything we know. Let us make plenty in the land, and then let us try to shape our social system and the laws so that a fairer share of it will come to us after we have made it.

Last fall I picked up a newspaper and read in great black headlines this alarming news: "A Heavy Frost. It spread over various sections of the Northwest Friday night. Early planted corn escaped with little injury; the late crop practically ruined." It requires no great skill in political economy, as they call it, to understand that the blighting of the corn crop is a great calamity; it means less food the coming winter, and less food means less of clothes, and coal, and wood. And yet there are a lot of workmen who would regard a blight of the hat crop, or the shoe crop, or the coat crop as a blessing to labor; but in truth they are all equally injurious as the blighting of the cattle and the corn. Food, and clothes, and furniture, and all necessities of life, are so intimately related, that the blight of one is the blight of all, and it means less of each to the workman.

It is easy to prove by the doctrines of the anti-competitionists that this disaster to the corn crop is a good thing, because it removes from the farmers living south of the frost line the competition in the corn market of the farmers living north of it. And it is also a good thing for the people who have old corn in the bins; but this is a narrow and selfish way to look at it, and if the doctrine be carried out to its logical end it elevates to the rank of a moral principle the unnatural dogma that the prosperity of one man depends upon the adversity of another. Once upon a time I had a job of "work on the roads" not far from an Indian agency. The tribe had just been paid off, and the Indians were trading at the store up at the agency where I happened to go for some tobacco. They were buying some needles, for which the trader charged them fifty cents apiece. They complained of the price, but when the trader assured them that the needle-maker was dead, and the needle-making industry thereby terminated, they appeared satisfied. This lying excuse for the high price of needles presented to me a tough problem in economic science, and I went up to the shanty to work it out.

I lighted my pipe, and tried to read the solution of the problem in the clouds of smoke. The first question to be answered was this: Suppose the needle-maker was really dead and his art lost forever, would that be a good thing? I had no trouble with this question at all. I could readily see that although it might be a good

thing for the man who happened to have a large stock of needles on hand, it would be a bad thing for everybody else. The next question was not so easy. It was this: Suppose that one-half of the needle-makers in the world should die to-night, would that be a good thing in an economic point of view? It took several pipes of tobacco to answer this question, and I am not sure that I got it right even then. The answer involved so many collaterals. It was very clear that if every needle-maker was a master, and not a journeyman, those who survived, being relieved of competition to such a great extent, would make good profit out of it by raising the price of needles, but the community would still be losers. But suppose that of the survivors 95 per cent. were journeymen, and 5 per cent. masters, where would the new profits go? Labor being a marketable thing, the masters would still want to buy it at the old figures, and the journeymen would get but a trifling raise of wages, while the increased value of needles would nearly all go into the pockets of the masters. But even supposing that the increased profit were fairly divided between them, the community would still have to pay it, and, therefore, the sudden removal of so much competition in the trade would be an injury, and not a benefit. Applying this rule to every other trade and occupation, it appeared to me that the loss of wealth, or of wealth-producing capacity, is injurious to the community, that the workmen cannot be benefited by such loss, and that all attempts to create a scarcity of competition by crippling talent, or forbidding the industry of anybody, can only be of local or personal benefit here and there, and the pursuit of such false systems of relief is a sad waste of the moral strength of the workingmen.

"Nature abhors a vacuum," is a maxim in physics, and in moral philosophy also. So nature tries forever to preserve an equilibrium in the moral and material universe. The very earthquakes and volcanoes are efforts in this direction, and men can no easier keep trades unbalanced than they can disturb the level of the sea. Create a vacuum in any trade and nature rushes in to fill it. If I could give paralysis to every shoveler to-night, how long should I enjoy my monopoly? In a week I should see shovelers galore. The telegraph operators made a vacuum, but only for an instant; it at once began to fill; in a month the hole was almost gone. We may think we have destroyed competition by excluding a brother craftsman here, but he or somebody else has slipped in over there, for the struggle of life goes on. We must liberate labor, and exalt it by grander schemes than these.

The source of final happiness is inherent in the heart; he is a fool who seeks it elsewhere. He is like the shepherd who searched for the sheep which was in his bosom.—*Hindu Vemana*.



## IGNORAMUS AND INVENIEMUS, NOT IGNORABIMUS OR INVENIMUS.

Some time ago the world of science was startled by Du Bois-Reymond's declaration of a seven-fold *ignorabimus*. Quite in harmony with English agnosticism this prominent German scientist despaired of ever attaining to a satisfactory solution of the most important problems in science and philosophy. He found much opposition, and many of his colleagues opposed him with a triumphant *invenimus*. We stated our view on the subject in the editorial of No. 23, "The Unknowable," in which we declared that the agnostic Unknowable is a chimera; the very essence and nature of natural phenomena is knowability. There is no mystery in nature of which we can proclaim an *ignorabimus*. Those questions, however, as to the ultimate cause of existence at large, which from their very nature admit of no answer—the transcendent or metaphysical problems as they are often called—are not justifiable. Such a thing as an ultimate cause, or a first cause, is a self-contradiction; an ultimate cause is an absurdity and exists as little as fabulous griffins and sphinxes. A sphinx will always be an enigmatic creature as long as we believe in its existence and try to realize how it can possibly live, and breathe, and have its being. The result of profound study and thought on the life of a sphinx will always be a modest and humble *ignorabimus*. But the sphinxes of science, the unexplainable mysteries of nature, are creatures of our own imagination. We can dispense with ultimate causes as well as with unknowabilities altogether. If we fully understand what causality means, the mystery which shrouds nature is dispelled. We shall see that nature's work is open and clear, not hidden and secret; it is knowable and not inscrutable.

As to the existence of reality, or the existence of the world at large, we accept it as a fact. A fact must be verified by statement. To prove a fact, means to verify it by witnesses. Existence at large, or the existence of the world, viz.: the truth that there is something at all cannot be explained by comprehension as phenomena are explained, it cannot logically be deduced by syllogisms or mathematical demonstrations. We must accept it like other facts on the evidence of witnesses. The chief witness in this case are we ourselves. By our very existence we bear testimony to the truth of the existence of reality, and this is the truth which is at the bottom of Descartes' dictum, *cogito, ergo sum*.

In thus taking the side of those who, encouraged by the success of science in so many fields of inquiry, rejoice in their *invenimus* (i. e. we have found a solution), we freely acknowledge also our *ignoramus* on many, and, indeed, on most important subjects. But observe, while the desperate *ignorabimus* (the we-shall-never-know) is an insurmountable obstacle to the progress of science, the modest *ignoramus* (the we-do-not-yet-know)

is an inexhaustible source to furnish new food for thought and investigation. The *ignorabimus* stands in contradiction to the *invenimus*; but the *ignoramus* very well agrees with an aspiring and hopeful *invenimus*, i. e. we shall find the solution of the problem, for the problem in itself is not insolvable.

We cannot find fault with the proud *heureka* of a Pythagoras. The *invenimus* of scientists can only become dangerous to science if it is the satisfied expression of a narrow-minded, self-contentedness. There are many problems, which, when once settled, are settled forever. But even they will only be a basis for further inquiry, as human cognizance can never embrace the rich and great totality of all possible knowledge in all its particulars.

In true science the *ignoramus* and the *invenimus* will always go together. The range of nature is so wide and the scope of science is so large, that with each problem solved we can be sure that new problems will arise; but none of them will be insolvable, and each *ignoramus* naturally carries with it its *invenimus*. P. C.

## THE BIRTH OF SATAN.

BY WM. SCHUYLER.

The first time man did conscious wrong,

He recognized mysterious powers;

That, like a tempest fierce and strong,

Blighted and killed life's fairest flowers.

Then, wondering what the cause might be,

He never thought himself to blame—

Supposed it was an enemy—

And so the birth of Satan came.

And even now, with broadened mind,

Man will not bear the blame of evil;

But seeks some alien cause to find,

While he himself remains—the Devil.

## CORRESPONDENCE.

To the Editor of THE OPEN COURT:

I was very much interested and edified by the discussion in the last number of THE OPEN COURT on the subject of conciliating or reconciling Religion with Science. The subject is an important one, and suggests to my mind many reflections.

In my opinion the position taken by your critic was very well answered by the editor. As I view the subject, a true science and a true religion need no conciliation. Like all great truths they are always, and necessarily, in harmony. The fact is, a true religion is a department of science, and is capable of a scientific explanation.

The conflict is only between science and a false or supernatural religion. The issue to-day is mainly between the advocates of a rational and natural, and, therefore, a scientific religion, and the devotees of an irrational and anti-natural religion.

If THE OPEN COURT proposes to conciliate science, properly so called, with a supernatural religion, it is undertaking to accomplish an impossibility. On the other hand, if it proposes to conciliate that which needs no reconciliation, namely, a true science and a natural religion, it is doing a work of supererogation.



However, I think your position has been made sufficiently clear, viz.: that when properly understood, there will be seen to exist no conflict, no antagonism between religion and science.

The question is, has the *concept, idea or emotion*, for which the abstract term *religion* stands as a symbol, a true and valid basis in the human mind, and if so, what is the cause of it? We answer, it has, just as much so as have the *concepts* of truth, goodness, justice, beauty, love and order, which are symbolized by the terms science, art, law, family and civil government.

The reason and cause of all these are to be sought for and found in the *relations subsisting between man and his environments*. The principle of *natural selection* operating by *conservative inheritance* on the one hand, and by *progressive adaptation* on the other will explain them all.

Now, in considering the question of religion or any other real phenomenon of human nature, we must not lose sight of the scientific fact that man is a *part* and a *product of nature*.

That he has been built up in nature, body and mind, and constantly subjected to its powerful influences. Emerging from an ape-like ancestry of arboreal habits into the savage man of the stone age, and born into a world of elemental strife, with no instruments of use or defense, save his own ingeniously constructed hands and feet, (so constructed by "natural selection,") he contended as best he could against the elements and the animals for the preservation of his life and the care of his offspring.

As necessity required, he invented implements of industry and warfare. The hand and the tongue kept pace with each other. As his reason developed, his occupations and implements increased, and his language became enriched.

From this lowly condition, in which all his energies were taxed in the struggle for existence, he has progressed by slow and tedious steps through long periods of time up to his present magnificent attainments. In the course of this development the sentiment we call religion was evolved in man.

Two dominant forces, namely, *nature and society*, constantly operating on his mental organism, produced in him mental and moral traits, such as memory, consciousness, conscience, sympathy, love, fear, hope, courage, wonder, and a feeling of dependence.

The genesis of his religions must, therefore, be traced to these two sources, the *influence of mankind over man*, and the *influence of nature over man*. The first produced in him *love of offspring, fear of the strong, fear of death, and belief in ghosts*, which was the foundation of *ancestral worship*.

*Ancestral worship* was the great fountain-head of all the polytheisms, monotheisms and anthropomorphic religions.

*Ancestral worship*, fear of the dead, and belief in ghosts among our remote ancestors, were the prolific sources of the doctrine of metempsychosis, idol worship, strange customs of burying the dead, descriptions of the condition of souls in the spirit land, holy books, holy times and places, miracles, prophecies, oracles, witchcraft, trial by ordeal, saints, holy ghosts, gods, devils, angels, and indeed all the doctrines and dramatic personae of the *theological stage*. Of course, as man improved his condition and became enlightened, these religions were refined and elevated from a crude fetishism to the worship of a Supreme Spiritual Being, but of course with many imperfections and anthropomorphic notions still clinging to their conceptions of Him. We have briefly alluded to the great stream of religion which took its rise in *man's influence over man*, and which has flowed down through human history, blessing and cursing mankind. Refining as man refined, and reverting to the *ancestral type* whenever and in the degree that man degenerated.

Let us now turn and glance at that other *original source* and fountain-head of religion, namely, the *influence of nature over man*. These religions are properly called *natural religions*, while those of the *ghostly order* are denominated *anti-natural or supernatural*

*religions*. The leading religions of this order may be classed by their generic names as follows, viz.: Fetishism, Zootheism, Polytheism, Monotheism, Theism. Of course, Judaism, Christianity and Mahometanism belong to this great order. The religions, or as some prefer to call them the philosophies, derived from *nature worship*, are usually denominated Atheism, Pantheism, Paganism, Deism, Agnosticism, Monism. This is by no means intended to be a complete list of the great religions, but only a few of the important ones. The great and venerable *super-natural* religions, with their immemorial memories, their traditional worship of a *man-like deity*, their dogmas of a *fallen world*, of a *place of salvation*, of a *personal devil*, of a hell of burning brimstone, and a ten by twelve heaven, are destined to lose their hold over the human mind. They certainly can claim the *past*, but the *future* is less secure.

*Scientific pantheism*, with the accent on the *second syllable*, is coming forward with its claims of a *natural religion*, based on *scientific principles*, to contest the *future* with its great and ancient antagonist. It already has a great following of devoted worshippers outside, and many inside of churches. It holds that all men are more or less religious by virtue of their organizations, and that all are immortal and may be happy if they will obey the conditions of their being and the *laws of nature*.

Some think religion is only an emotion of fear and ignorance, and one of the incidents in man's evolution, and will some time be outgrown and eliminated. I think otherwise. Man inherits a sentiment of religion, which may be cultivated and improved by proper surroundings, the same as any other emotion. Science or knowledge of the universe will never destroy or eradicate man's admiration of the works of nature. Indeed, I should rather suppose that a scientific knowledge of the universe would enhance man's feelings of the true, the good, the beautiful, the sublime, the sentiments of love of God and love of man—in fine, his *religious emotions*. The child, the Indian, has these emotions to some degree; the man of thought, of culture and great attainments, to a much greater degree. Man, always environed by the same universe, I cannot see how he will outgrow the religious sentiments and emotions which it inspires; his notions of religion will refine as he refines, but the intellect or the reason will never *annihilate* the emotions.

Crude notions of religion have indeed been entertained by great men from the time of *Menu* and *Moses*, down through the ages to the present time; but modern science, the hand-maid of *Monistic philosophy* and *Pantheistic religion*, is leading men to purer and sublimer visions of the universe, and consequently to clearer emotions, a grander conception of God, and a more enlightened worship.

Whoever will take the pains to investigate the religious history of the world, will find, I think, after sifting and analysing a good deal of the rubbish of history, *two great conceptions of religion*, which are often found united. But however commingled they may be, in this or that form of literature or worship, they will on a final analysis be found to have distinctive characteristics.

One inculcates an anti-natural religion, a dualistic philosophy, and the worship of a *supernatural God outside of nature*, by and through some *god-man or holy book*, all for the avowed purpose of escaping from a present fallen condition and a future *inferno*, an evil doom of unimaginable horrors.

The other system inculcates a *natural religion*, a *monistic philosophy*, the purest humanities without intolerance or superstition, and the adoration of an infinite Divine Intelligence; through *nature* pure and simple, because it is a joy and a beatitude to thus commune with the source of All Being. With such a religion as this, which has not to be *authenticated* by prophecies and miracles—science is in accord and needs no reconciliation.

*Pantheism* has come down to us mainly through *Arjan*



sources. From Indian or Hindoo Brahminism, through the *Magi* of Persia, through the Greek and Roman mythologies and philosophies and through Arabian and European literature and science of the Middle Ages to its *present form*. *Anthropothism* has come to us chiefly through the *Semitic* races and languages.

From Assyrian idolatry through Judaism, Mahometanism and Trinitarian Christianity. These great religions have built temples and tombs, mosques and monasteries, castles and cathedrals, and dedicated them to the worship of their several deities. They have maintained wars at the command of their gods—conducted pilgrimages and crusades, overrun and conquered countries, and established powerful governments and systems of worship.

They have encouraged superstition, persecuted heresy, opposed progress, science and philosophy. Maintained a priesthood that inculcated dogmas, miracles and oracles, and taught the people to abjure the joys and pleasures of life; to hate the face of nature, to mourn and weep; to look away from the earth and toward the skies for comfort and consolation.

Let us now turn from the past and view the present and the prospect. *Scientific Theism* or *Modern Pantheism* with its doctrine of an organic and dynamic cosmos permeated with *divine life, love, and intelligence* is coming forward, backed by the best minds of the age and claiming our attention and our devotion.

In philosophy it is monistic, optimistic, scientific, and in accord with the great theory of Evolution and Modern Art, learning and civilization.

In religion it is *eclectic* and cosmopolitan—it gathers and gleans the good and true from every system. It inculcates all the sweet humanities, all the virtues and moralities, and worships a divinity of Infinite and ineffable glory, who floods the soul of every man with his love and presence as the light and heat of the morning sun fills all our dwellings with its effulgent rays.

Liberal Unitarian Christianity is the best organized exponent of these views in this country. But there is as yet no adequately organized expression of this *rising religion*. It exists in the expressed and unexpressed thoughts and feelings of our greatest and best men and women *inside* and *outside* of the Christian churches; in literature, in science, art, philosophy, and in common every-day life.

The church of the future is being evolved from elements inside and outside the great Christian church of the present, and when it comes, as come it will, it will be broad enough and grand enough to recognize and receive the true, and the good, and the beautiful wherever found. It will be a religion that will welcome and receive the sanction and support of the Humboldts, the Huxleys, and the Darwins of science; the Spinozas and Spencers of philosophy; the Goethes and Shakespeares of poetry; the Carlyles, the Victor Hugos and Emersons of literature; and the Beechers and Ingersolls of oratory. Such a religion will of necessity be founded on a *universal science* and art, a *universal human brotherhood*, and one universal divinity.

W. W. RICHMOND.

### OBEDIENCE OR JUDGMENT.

SIR—In looking over THE OPEN COURT I have only just now noticed on page 719, the remarks on probation. Gail Hamilton seems to strike right and left and all around. Yet she does not touch the question, only *her idea* of probation. Suppose we substitute the word *obedience* for probation, and consider that the power which has given laws to the universe requires obedience in all things and all creatures; obedience in the storm-cloud and in the sunshine; in the forming of a snowflake and of a dewdrop; in the running brook and in Niagara; obedience in all growth and all activity; in health and in disease; obedience to the laws which govern men in their physical, intellectual, and ethical relations;—would such a change of word be a repudiation of the grand truth latent in probation and patent in obedience? Now, in fact,

myriads who are loyal to law understand just this by the use of that word. And that if creatures, having self-volition, persist in disobeying the laws of their being, not even "the All" of nature can save them from its consequences. The Christian religion offers a Redeemer who has ransomed the erring, but neither Christianity nor naturalism can ransom that or those who persist in disobedience to the laws which govern them.

Another of your contributors prefers to use "the All" for God. Well, let him for our purpose. Let him Anglicise the Greek *ὁ πᾶν*; let him become a Brahmin or a Buddhist. This cannot change the fact of the existence and supremacy of Deity, of something or some One in the government of our world, that makes for righteousness. For use what words we may, there is some power in nature which makes for righteousness. Ethics are but the eternal laws which He has established. Wherefore, if righteousness, right living, right thinking, right aspiration, be the law of our being, that power cannot approve, nor be blended with wrong aspirations, thinking and living in any one. Hence men exclude themselves from Him, exile themselves from Him, and withdraw in their own seclusion of oppugnancy and rebellion. Harmony is the nice adjustment of parts to a whole, whatever that whole may be. You cannot harmonize right and wrong, virtue and vice, loyalty and rebellion. So in nature, so in life, so in eternity, which is the continuance of present life, there must be harmony; harmony among the celestials in the divine presence;—as for creators of discord, they are consigned to the abode of the devil and his angels.

E. COWLEY.

[Rev. E. Cowley is right in saying that "neither Christianity nor naturalism can ransom those who persist in disobedience to the laws that govern them." As to the idea of evil and the evil one we refer to Mr. William Schuyler's poem on page 903 of THE OPEN COURT. Rev. Cowley's view concerning the fate of "the creators of discord" is anthropomorphic, and almost as picturesque as Breughel's famous paintings.—EDITOR.]

LIVERPOOL, March 25, 1888.

TO EDWARD C. HEGELER, ESQ., CHICAGO:

MY DEAR SIR—\* \* \* In THE OPEN COURT of March 1, p. 786, middle of first column, occurs a distinction which I much admire, and which is emphasized by the use of *italics*.\*

Such is the *object* of mechanics. But suppose certain phenomena exhibited residuary motions, not only not accounted for by our present treatises on statics and dynamics, but plainly in excess or deficiency of results such as might be anticipated, all possible corrections having been applied. What then? Are the refractory phenomena to be put out of sight as dangerous to the credit of science? Such discrepancies *there are* in almost or quite all natural laws. But what of that? Be silent about them, for they are odious to men of science, who see in them loop-holes for the introduction of the supernatural! O, most unworthy timidity! These discrepancies are only links which join our true, but lower laws, with less known laws of higher systems, yet not supernatural, but rising tier above tier in unity and harmony, the very highest being as thoroughly in unity with nature as the lowest. It is heart-breaking to hear the positivist's loud worship, not of the united *ἀόρατος*, but of his own text-book on science for 1888.

Are we in no danger of ascribing to the monism of the day, beautiful though it be, a perfection to which it never can attain whilst its foremost followers assume, even as Haeckel, the attitude of *invenimus*? It is a childish dread that to step off the platform of the monism of the day is to plunge into supernaturalism. He is no learner from nature who sees no mystery in her; nay, who

\*The passage mentioned reads as follows: Kirchhoff says: "Mechanics is the science of motion. Its object we define to be this: To describe with exhaustive thoroughness and the greatest attainable simplicity the motions that are taking place in nature."



does not rejoice in its abundance. It is cruel to add another panacea! Monism should do better than join the category of infallible salvations. It is hard to get a hearing for reverent free thought; it seems to offend everybody all round, yet I trust you will not be offended. Believe me your much indebted and grateful correspondent,

HENRY H. HIGGINS.

[We do not object to the word "mystery," as Rev. H. H. Higgins uses it. The world is full of problems, and we rejoice in their abundance. We object to the word mystery in its usual sense of an inscrutable and incomprehensible secret, which by its very nature cannot be known and lies beyond the ken, not only of ourselves, but of all possible comprehension. We refer our readers to the editorial "Ignoramus and Inveniemus," on page 903 of this number.—EDITOR.]

#### NOTES.

Mr. William M. Salter will make lecture engagements for the month of June. Address 516 North Avenue, Chicago.

Professor L. Büchner, whose name is well known among the free thinkers of all countries, informs us in a private letter that since his adult children have left their home, he would be willing to receive guests in his house as permanent boarders. His offer is an excellent occasion, not only for visitors of Germany who would enjoy the company of a profound scholar and a prominent scientist in his leisure hours, but also for parents who wish to send their children abroad. We must add that the city in which Professor Büchner lives has excellent schools. His address is Darmstadt, Germany, 14 Hölges street.

#### BOOK REVIEWS.

LOOKING BACKWARD—2000-1887. Edward Bellamy. Boston: Ticknor & Co.

As the author of "Miss Ludington's Sister" and "A Nantucket Idyl," Mr. Bellamy has won a high rank among modern story-writers. In his last work his imagination undertakes the enticing but difficult task of describing a possible social state to exist at the end and during the progress of a thousand years. It is well written and ingenious, besides holding the reader's interest by the skill and power of the general plot. The object of the book, the author explains with a touch of quiet humor, "is to assist persons who, while desiring to gain a more definite idea of the social contrasts between the nineteenth and twentieth centuries, are daunted by the formal aspect of the histories which treat of the subject."

C. F. W.

The *Popular Science Monthly* for April contains an interesting essay by Prof. T. H. Huxley, "The Struggle for Existence: a Programme," in which the famous scientist, in discussing the question of industrial education, expresses his views upon pre-historic man as follows:

"In the cycle of phenomena presented by the life of man, the animal, no more moral end is discernible than in that presented by the lives of the wolf and of the deer. However imperfect the relics of prehistoric men may be, the evidence which they afford clearly tends to the conclusion that, for thousands and thousands of years, before the origin of the oldest known civilizations, men were savages of a very low type. They strove with their enemies and their competitors; they preyed upon things weaker or less cunning than themselves; they were born, multiplied without stint, and died, for thousands of generations, alongside the mammoth, the urus, the lion, and the hyena, whose lives were spent in the same way; and they were no more to be praised or blamed, on moral grounds, than their less erect and more hairy compatriots.

"As among these, so among primitive men, the weakest and stupidest went to the wall, while the toughest and shrewdest,

those who were best fitted to cope with their circumstances, but not the best in any other sense, survived. Life was a continual free fight, and beyond the limited and temporary relations of the family, the Hobbesian war of each against all was the normal state of existence. The human species, like others, plashed and floundered amid the general stream of evolution, keeping its head above water as it best might, and thinking neither of whence nor whither."

We must add that according to our view Professor Huxley undervalues the import of morality in the struggle for existence. Man survived not because of his toughness, or his shrewdness, but because of his moral qualities. The antediluvian fox was perhaps shrewder, and the lion or bear tougher, than the prehistoric savage or man-ape; but they were lacking in the moral faculties which bind single individuals together with the ties of love, of family and of friendship. Moral feelings, or rather the capacity and conditions of the growth of moral feelings, the tendency to reveal moral qualities, made the primitive man sociable. A social animal develops more morality than solitary beings, and the shrewdness of a social being becomes intelligence. Intelligence is more powerful as a weapon in the struggle for existence than shrewdness, because it does not lack in morality. Human speech is the product of intelligence and not of shrewdness. Man was able to develop speech only because he was moral enough to be social, and this morality elevated man above the rest of the animal world. Among savage tribes the most intelligent and *not* the shrewdest survived. It is an undeniable fact that in any given district the tribes who were lacking in morality, even when the very shrewdest and toughest, had to go to the wall, while in the end the most moral remained victorious. It is a wrong historical view to imagine that the Romans conquered the world because they were shrewder, stronger and more ferocious than their neighbors. They conquered the world because they possessed in addition to strength a rare moral quality—the quality of justice. And even their strength was not the physical force of a ferocious bull, but the moral strength of courage.

It will thus be seen that morality affords the power to survive, and if the primitive savage was not moral in the present acceptance of the word, he was in his time relatively the most moral being on earth, and this gave him more strength than toughness or shrewdness could ever afford.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

#### CHAPTER XIII.—Continued.

"There is one class of people of whom I am much afraid," said Ilse to her husband; "and that is the students. When I was scarcely grown up and on a visit to an aunt, I saw a whole company of them march through the gates with their large swords, hats with plumes, and velvet coats. They were so wild that I did not venture into the streets all that day. If now, as your wife, I must have intercourse with these rough men, I shall not exactly be afraid of them, but they will make me uneasy."

"They are not all so bad," said the Professor, consolingly; "you will soon get accustomed to them."

Notwithstanding this, Ilse awaited the first visit of the students with much anxiety.

It happened that one morning the bell rang just when the Professor was detained at the University

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library, and Gabriel and the maid had been sent out. Ilse opened the door herself. A young man whose colored cap and black map under his arm proclaimed him a student, started back in surprise. He looked quite different from what she expected, being without ostrich feather or sword, and his face was pale and thin; yet Ilse felt respect for the learned young man, at the same time dreading that the rude nature of his class might suddenly break out. She was, however, a brave woman and took a practical view of the visit. As long as the misfortune has come I must be courteous. "You wish to speak to my husband; he is not at home at present. Will you have the kindness to walk in?"

The student, a poor philologist who was a candidate for a scholarship, was thrown into great alarm at the majestic being who stood before him. He made many bows and did not venture to refuse. Ilse took him into the parlor, motioned him to an arm-chair and asked whether she could be of any service to him. The poor wretch became still more embarrassed and Ilse was also infected by his discomfiture. She made an effort, however, to begin a conversation, and inquired whether he belonged to the city. This was not the case. From what country did he come? she also was a stranger. He proved to be from her own province—not indeed close to her home, but within ten miles from it; he had, therefore, from his earliest youth looked on the same mountains and knew the dialect of her country and the voices of the birds. Now she moved nearer to him and made him converse, till at last they chatted together like old friends. At length Ilse said: "My husband will perhaps not return very soon; I should not like to deprive him of the pleasure of seeing you. How would it be, my countryman, if you would give us the pleasure of being our guest to dinner next Sunday?"

Surprised and with expressions of thanks the student arose to take leave and was accompanied to the door by Ilse. But he had been so confused by the adventure that he had forgotten his portfolio. Again he rang the bell diffidently; again he stood embarrassed at the door and with many excuses asked for his portfolio.

Ilse was pleased with this meeting and with having so well overcome her first difficulty. She called out joyfully to her husband when he came to the door, "Felix, the first student has been here."

"Indeed," answered the husband, in no wise disturbed by the announcement; "what is his name?"

"I do not know his name, but he wore a red cap and said he was not a freshman. I was not at all afraid and I asked him to dinner for Sunday."

"Well," replied the Professor, "if you do that to everyone our house will soon be full."

"Was it not right?" asked Ilse, troubled. "I saw that he was not one of the principal ones, but I wished, on your account, to do too much rather than too little."

"Never mind," said the Professor; "we will not forget that he was the first one to look into your dear face."

Sunday came, and with it, at the hour of noon, the student, who had on this occasion paid exceptional attention to his toilet. But Ilse, observing the demeanor of her husband toward the student, maintained a quiet, motherly dignity. In accordance with this she gave him a second helping of the roast and provided him with quantities of vegetables. This kindly treatment and several glasses of wine, the last of which was poured out by Ilse, strengthened the heart of the student and raised him above the petty things of earthly life. After dinner the Professor conversed with the Doctor on some learned subjects. But Ilse kindly kept up a conversation with the young gentleman and put him so much at his ease that he began to speak of his family affairs. Then the student became confiding and pathetic and began some very sorrowful disclosures. In the first place, naturally, that he had no money; then he ventured to add the painful confession of a tender attachment for the daughter of a lawyer who lived in the same house with him, and whom he had secretly worshiped for a whole year and expressed it in poetry. But at last the father interposed; he, with a tyranny peculiar to magistrates, forbade the acceptance of the poems by his daughter and contrived to remove the student from the house. Since that time the heart of the student had been an abyss of despair; no longer did any poem—they were sonnets—penetrate to the secluded beloved one. Nay, he even had grounds to believe that she too despised him; for she attended balls, and only the previous evening he had seen her with flowers in her hair alighting from her father's carriage at a brilliantly lighted house. Sorrowfully he had stood at the door of the house among the spectators; but she had glided past him smiling and beaming. Now he wandered about in despair and alone, weary of his life and full of dismal thoughts, concerning which he gave gloomy intimations. Finally, he asked Ilse's permission to send her these poems which expressed the condition of his heart. Ilse, of course, consented, with expressions of sincere compassion.

The student took his leave and the next morning Ilse received a package with a very respectful letter, by post, in which he excused himself for not sending her all the poetical pieces which would place his misfortune in the right light, as he had not copies of them ready. Enclosed with them was a sonnet to Ilse herself, very tender and full of reverence, in which it was clearly the secret intention of the student to make Ilse the mistress of his dreams in the place of his unfaithful love.

Ilse, somewhat embarrassed, laid this enclosure on the writing-table of her husband.

"If I have done wrong, Felix, tell me."

The Professor laughed.



"I will send him back his poem myself; that will cool his ardor. You know now that it is dangerous to receive the confidence of a student. The poems, by the way, are poorer than need be."

"Thus I have had a lesson," said Ilse, "which I have brought upon myself; for the future I will be more cautious."

But she could not so easily banish the recollection of the student.

Every afternoon, when the weather was favorable, Ilse went at the same hour with her husband to the adjacent wood. The happy couple sought out lonely by-paths where the branches were more thickly intertwined and the green carpet beneath contrasted gaily with the yellow leaves. Then Ilse thought of the trees on her father's estate; and the conversation with her husband always reverted to her father, brothers and sisters and to the latest news she had had from home. In the meadow which extended from the last buildings of the town to the wood there stood a bench under a large bush; from there could be seen the hostile houses in the foreground and behind them the gables and towers of the city. When Ilse came upon the place the first time, she was pleased at the sight of her own windows and the surrounding gloomy towers, and it led her to think of the seat in the cave from which she had so often looked on her father's house; she sat down on the bench, drew out the letters which she had just received from her brothers and sisters, and read to her husband the simple sentences in which they reported the latest events on the estate. From that time forth this became her favorite resting-place, as she and her husband bent their steps homeward.

The day after the reception of the student's package, on arriving at the bench, she saw a small nosegay lying on it; she picked it up with curiosity; a delicately folded note of rose-colored paper was appended to it, with this inscription: "A greeting from B." After this as many stars as there were letters in the name of her father's country-place. Surprised, she handed the note to the Professor. He opened it and read these unpretentious lines:

The little dwarf in his stone-built bower,  
Has written the rhyme on this card.  
He sends from your father's home a flower,  
With his heart-felt, most cordial regard.

"That is meant for you," he said, in astonishment.

"How delightful!" exclaimed Ilse.

"The '*dwarf*' must certainly be a joke of the Doctor," decided the Professor; "truly, he has well disguised his handwriting."

Ilse, delighted, pinned on the nosegay.

"When the Doctor comes this evening he shall not find out that we have discovered him."

The Professor dilated upon the droll idea of his

friend and Ilse, who before had looked upon the Doctor with secret distrust, heartily agreed.

But when, in the evening, the Doctor feigned the greatest nonchalance, he was jestingly scolded for his art of dissimulation and loaded with thanks. When, however, he firmly declared that the nosegay and verse did not come from him, fruitless discussion arose as to the author, and the Professor began to look very serious.

A few days later the offering in the wood was repeated; another nosegay lay on the bench with the same address and a verse. Again did Ilse endeavor gently to maintain that there had been collusion on the part of the Doctor, but the Professor rejected that and put the rose-colored note in his pocket. Ilse took the nosegay with her, but this time did not place it in her girdle. When the Doctor came the adventure was again discussed.

"It can be no one but the little student," said Ilse, much distressed.

"That I fear, also," said the Professor, and related to the Doctor Ilse's annoyance at the confidential package from the son of the muses. "Harmless as the thing appears in itself, it still has a serious aspect. These addresses imply close watching, which is anything but agreeable, and such activity and assiduity may lead the adorer to still greater daring. He must be checked. I will endeavor to-morrow to convince him of his error."

"And if he should deny the act," interposed the Doctor. "You should at least make this impossible. As the nosegay has escaped the observation of others passing by, it has probably been laid there the last moment before your appearance, which would not be difficult to do, as you always pass at the same hour. We must endeavor to surprise the daring man."

"I will go alone to-morrow," said the Professor.

"You ought not to watch a student in the wood," said the Doctor, decidedly. "Besides, if your wife remains at home the nosegay will probably not lie on the bench. Leave the affair to me. Go out as usual to-morrow and the following days and I shall watch the place from some other point."

This being settled, the Professor took both the small nosegays from the glass and threw them out of the window.

On the following day, a quarter of an hour before his friends started, the Doctor went to the wood, disguised in a grey coat and dark hat, in order to fall upon the presumptuous versifier from his hiding-place; he undertook to chastise the offender so that the Professor would be spared any personal interference. He found a good place just opposite the bench, where the dense beech foliage would conceal the hunter from his game. There he placed himself in a good position, drew a large opera-glass from his pocket and fixed his eyes incessantly on the bench in question. The bench was still empty;



the few pedestrians passed it by with indifference; the time seemed long; the Doctor looked for half an hour through the glasses, so that his eyes began to ache, but he persevered. His place was well chosen; the offender could not escape. Suddenly, just as his eyes accidentally glanced toward Herr Hummel's house, he saw the garden gate open; something dark passed out between the trees and came toward the bench out of the thicket, looked cautiously round, passed by the bench and disappeared again among the trees and through the hostile garden gate. An expression of infinite astonishment was depicted on the countenance of the Doctor; he closed his opera-glass and laughed quietly to himself; then directed the glasses again, peering after the vanished figure; shook his head and fell into deep thought. He listened and heard the quiet steps of two promenaders. The Professor and Ilse came out of the wood; they stopped a few steps from the bench and looked at the fatal nosegay which lay there so innocently. The Doctor burst out from the copse, laughing, took up the nosegay, and, offering it to Ilse, said:

"It is not the student."

"Who then?" asked the Professor, uneasily.

"That I cannot tell," replied the Doctor; "but the affair is harmless—the nosegay is from a lady."

"Seriously?" asked the Professor.

"You may depend upon it," replied Fritz, convincingly. "It is from some one whom we both know and your wife need not hesitate to accept the greetings. It is given with the best intentions."

"Have the townspeople so many verses and secrets?" asked Ilse, curiously, taking the flowers with a light heart.

Again there was guessing: they could not find any one on whom they could fix it.

"I am glad that the mystery is thus solved," said the Professor; "but tell your poetess that such missives might easily fall into bad hands."

"I have no influence over her," replied the Doctor; "but whatever may have put it into her head to do this, it will not always remain a secret."

At last came the long-wished-for hour in which Laura was to have a private meeting with the distinguished stranger, as Ilse up to this day was designated in the private memoirs. Her mother had gone out when Ilse entered the sitting-room to ask a household question. Laura gave the information, gained courage and at last ventured to request that Ilse would go with her into the garden. There they sat together under the last rays of an October sun and interchanged opinions concerning the boat, the Chinese temple and the passers-by. Finally, Laura respectfully took Ilse's hand and drew her into a corner of the garden in order to show her a great rarity—the abandoned nest of a hedge-spar-

row. The birds had long flown away and the remains of the nest still hung on the half-bare branches.

"Here they were," cried Laura, impressively; "charming little creatures; there were five speckled eggs there and they reared their little ones successfully. I was in mortal terror all this time on account of the cats that prowled about here."

"You have never lived in the country," said Ilse. People here in the city are delighted if they can only keep one poor little sparrow in their garden. At home they chirruped, sang and flew about in all the trees; and unless there was something unusual about one of them, one took no particular notice of them. Here each little creature is valued and cared for, even the sparrows. The first morning I was here I was shocked at the sight of these poor creatures; they are not to be compared to their brothers in the country, their feathers are so bristly and uneven, and their whole bodies are black and sooty, like charcoal-burners. I would gladly have taken a sponge to wash the whole lot."

"It would be of no use; they would become black again," said Laura, despondingly. "It is caused by the soot in the gutters."

"Does one become so dusty and is one so roughly handled in the city? That is sad. It is certainly much more beautiful in the country." As Ilse softly acknowledged this, her eyes moistened involuntarily with the thought of the distant woody hills. "I am only a stranger here," she added, more cheerfully. "The city would be very pleasant if there were not so many people; they annoy me with their staring, whenever I go out alone."

"I will accompany you if you like," said Laura, delighted; "I shall always be ready."

This was a kind offer and was thankfully accepted. Laura, in her great joy, ventured to ask Ilse to go with her into her private room. They ascended to the upper story. There the little sofa, the ivy screen, the shepherd and shepherdess, were duly admired, and finally the new piano.

"Will you play something for me?" asked Ilse. "I cannot play at all. We had an old piano but I learnt only a few tunes from my dear mother for the children to dance to."

Laura took a piece of music, the first leaf of which was beautifully ornamented with gilded elves and lilies, and played the "Elfin Waltz," secretly trembling, but with great execution; and she explained, laughingly, and shaking her black locks, the passages where the spirits came fluttering in and mysteriously chattered together. Ilse was highly delighted.

"How quickly your little fingers fly," she said, regarding Laura's delicate hand with admiration. "See how large my hand is in comparison and how hard the skin—that comes from doing housework."

Laura looked entreatingly at her. "If I might only hear you sing."



"I can sing nothing but hymns and some old country songs."

"Oh, do sing them," begged Laura. "I will endeavor to accompany you."

Ilse began an old melody and Laura tried a modest accompaniment and listened with transport to the rich sound of Ilse's voice; she felt her heart tremble under the swelling tones and ventured to join in the last verse.

After this she searched for a song which was known to both, and, when they succeeded tolerably in singing together, Laura clapped her hands enthusiastically, and they determined to practice some easy songs in order to surprise the Professor.

In the course of conversation Ilse confessed that she had seldom heard a concert, and occasionally when visiting in the neighborhood, had seen a play, but only one opera.

"The piece was called the *Freischütz*," said Ilse; "the heroine was the forester's daughter, and she had a friend just as merry, with beautiful locks and frank eyes like yours; and the man whom she loved lost his faith in the gracious protection of heaven, and in order to obtain the girl he denied God and surrendered himself to the Evil One. That was fearful; her heart became heavy and a foreboding came over her; but she did not lose her strength of mind, nor her trust in help from above; and her faith saved her lover, over whom the Evil One had already stretched out his hand."

Then she accurately described the whole course of the action.

"It was enchanting," she said. "I was very young, and when I came back to our lodging I could not compose myself and my father was obliged to scold me."

Laura listened, sitting on a footstool at Ilse's feet; she held her hand fast and heard her account as a little child listens to a tale she already knows.

"How well you describe it; 'tis as if one was reading a poem."

"Ah, no," exclaimed Ilse, shaking her head; "this compliment is just what I do not in the least deserve. I have never in my life made a verse and I am so prosaic that I do not know how my unpolished nature will adapt itself to the town, for here they write verses; they hum about in the air like flies in summer."

"What do you mean?" asked Laura, hanging her head.

"Only think, even I, a stranger, have received verses!"

"That is quite natural," said Laura, folding her handkerchief in order to conceal her confusion.

"I have found little nosegays on the bench in the park, with dear little poems, and the name of my home given by a letter and stars. See, first a large B, and then—"

Laura, in her delight at this account, looked up from

her handkerchief; her cheeks were suffused with color; there was a roguish smile in her eyes.

Ilse looked at the beaming countenance and, as she spoke, guessed that she was the giver.

Laura bent down to kiss her hand, but Ilse raised her curly head, threatening her with her finger and kissing her.

"You are not angry with me," said Laura, "for being so bold?"

"It was very sweet and kind of you, but you must know that it caused us a great deal of uneasiness; the Doctor discovered you, but he did not tell us your name."

"The Doctor?" exclaimed Laura, starting up. "Must he always interfere everywhere!"

"He kept your secret faithfully. Now I may tell my husband all about it, may I not? but, between ourselves, he was very much displeased for a time."

This was a triumph for Laura. Again she seated herself at Ilse's feet and archly begged her to relate what the Professor had said.

"That would not be right," answered Ilse, gravely; "that is his secret."

(To be continued.)

## THE OPEN COURT,

PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRESIDENT. DR. PAUL CARUS, EDITOR.

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All communications should be addressed to

THE OPEN COURT,

P. O. DRAWER F. (Nixon Bldg., 175 La Salle St.) CHICAGO, ILL.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 35. (VOL. II.—9.)

CHICAGO, APRIL 26, 1888.

Two Dollars per Year.  
Single Copies, 10 cts.

## MONISM AND RELIGION.

A REPLY TO "THEOPHILUS," BY E. P. POWELL.

The discussion opened by D. Theophilus seems to me to be so vitally important that it should not be allowed to rest. Is he correct in the general statement of facts? Let me number them so as to cover, to at least a just degree, the scope of the able essay:

(1.) There is no warrant for the statement that there is no antagonism between science and religion, which involves that there is an essential antagonism between religion and science.

(2.) Wherever and whenever in the world's history there arose a science, distinctively formulated, it invariably and inevitably clashed with religion.

(3.) With the scholastics originated the idea of reconciling religion and science.

(4.) Having by means of scholasticism won a position, science was not long in claiming for itself the sole authority over the nature of knowledge.

(5.) The fall of scholasticism led to a separation of science and religion (once more).

(6.) All subsequent efforts at reconciliation have failed in like manner.

(7.) Religion is not an ultimate fact of human nature. It is not a fact for Strauss.

(8.) Religion rests on a belief or a knowledge concerning an object, intelligent and supreme, analogous to the human, a personality possessing a will and power to control human destiny, and other than nature. With this is conjoined an emotion of fear, awe, love, etc., followed by acts of worship.

(9.) Such was the idea of religion to all minds until the present century; and only of late has there been an endeavor to seek some other foundation in human consciousness than the old one.

(10.) This effort is futile, for religion rests on dualism and postulates an anthropomorphic God as an indispensable condition of its existence.

(11.) The Infinite, the All, etc., fail to give meaning and life to religion. People would be as likely to worship the All as they would a tomcat or an Egyptian mummy. "Banish dualism from your head, and religion will necessarily vacate the heart."

This is, I believe, a just and complete summary of his argument, placed in such a form that it can be dealt with without confusion. It matters not what may be

the purport of this argument, whether to defend dualism or to undermine monism, or neither. I believe it involves erroneous statements of facts; but more vitally erroneous conceptions of the relations and bearings of facts. Inaccuracy of definition is also not absent, notwithstanding an apparent effort at demanding precision of others. The trend of science has of late been so positively constructive of a monistic theology, or logic of the universe, vital as well as material, psychical as well as physical, that the assertions of this essay cannot be justly or wisely overlooked. Especially does monism find it essential to take up the glove at the declaration that dualism is the only basis for religious sentiment. Had the statement rested at the affirmation that some modification of anthropomorphism seems essential to any conception of a lovable and worshipable being, the challenge might have been overlooked, as comparatively non-essential. But we must have, it appears, not only anthropomorphism in perception, but dualism in conception.

Not, however, in any way to anticipate the points made, let us begin with No. 1: "There is an essential antagonism between religion and science." On the contrary no religion exists to-day, or ever did exist, which was not essential science. Involved in the earliest phases of religion were the scientific conceptions of the day. The Vedas are full of it. Egyptian religion was an explanation of the universe. About 2000 B. C. the whole Brahmanic and Zendavistic theology had taken shape. Its basis was science; its development was ritual of service and worship. The creation is not an accidental beginning of the Hebrew Scriptures, it is the very core and soul of the whole Hebrew and Christian faith. The explanation of things, the How and Why of the universe is the essential starting point of faith; and faith never escapes its originating impulse. The New Testament exists because of the Old. Man was made by God; we fell from righteousness; hence the need of a Redeemer; and so you get the whole scheme of salvation. Remove the science at the foundation, and the system topples at once. The believer must stand by Adam and the Creator *extra naturam*, or he will have to give up his atonement and his heaven and hell. This is true in essential measure of all religions known. Cause was the one all-demanding problem; the cause of what appeared; and above all the final cause. The



sum of all theology, and the basis of all religious sentiment is to-day the cause of causes—the final cause—the God.

With point No. 2 we need not so essentially clash, "that wherever and whenever in the world's history there arose a science, distinctively formulated, it invariably and inevitably clashed with religion." But very plainly the bearing of this statement is wholly reversed by what we have stated under No. 1. The conflict is inevitable, because the rise of a new science is in the face of an existing science. A science, involving theology, being in the field, any new science or evolution of science must conflict with it. So, then, our new statement is, that there is a conflict between two sciences. If you can possibly invent a science absolutely involving no doctrine of causes, or cause, or cause of causes, you will have not the least conflict with theology. But this is impossible. Each and every increment of scientific knowledge modifies our ideas of causality. So that the theologian of to-day is compelled to say it is our final duty "to push the cause of causes as far back in nature as possible." But monistic science, that is, the science of evolution, pushes him out altogether. Let us look over history. The Vedic or Brahman in evolution was a new scientific outlook, and we have evidence of a fierce conflict back there, 2000 B. C., among our Aryan fathers in Central Asia—a struggle that reached out and involved to the west, the Shemites. About 1500 B. C. occurred another great evolution, that which gave to the world the Mosaic code, the laws of Manu, and the laws of Tschon in China. But this was an unfolding of law, or a codification of morals, and hence there arose no conflict whatever. Religion endures new moral frontages; but to new scientific frontages it takes affront. 1000 B. C. was a marked moral evolution of Homeric and Davidic song, but no new science. The old was sung into rich spiritual life among the Shemites; and into poetic softening of brute force conflict among the Aryans. But 500 B. C. was the age of Buddha, Confucius and Socrates. At the great centers of civilizations science promulgated new views of the universe, and they could stand only by the downfall of the old system of cause and causes. The old Gods were assailed not as religious beings, but as scientific causes. "Are there 30,000 Gods?" they asked of Buddha. If there are let them alone, was the essential reply. Confucius and Socrates gave almost identical answers in spirit.

I might trace the same historic periodicity of evolution, and show that at well rounded periods since Jesus, knowledge has accumulated, so as to confront the old science with a new system of explanations. These evolutions culminated in battles of the orthodox old with the heretical new. About 500 A. D. came the culmination in a Papal power; 1000, in the absolute Hierarchy. But about 1500 the seething of new facts and a widen-

ing outlook caused the great struggle of the Reformation. Was this a simple struggle of theologies, or the ritualistic outgrowth of sciences? You will find it was no such thing. Calvinism is a reconstructed science, and logic of asserted scientific facts. The Westminster Catechism, and all other Calvinistic fulminations, are efforts to explain the universe and man as the thing of a Creator. That the present struggle is not one of science with theology is certain; but it is a confronting of cosmologies and geologies and anthropologies, and only therefore of theologies. It is simply a question whether we are bound to believe the scientific conceptions of 2000 and of 4000 years ago, or those of to-day,—the latest research; and whether our worship should be of a Being implied in primitive science, or of Being as implied in modern science.

But (3) "with the scholastics originated the idea of reconciling religion and science." This is to ignore all the struggle of the Jewish Rabbis before Jesus, of the Greek philosophers, of the Buddhistic school of commentators. The facts are that each great unfolding of science (religion) has led to a school of reconciliation; and history has been everywhere as full of the pacifications as of the conflicts; the harmonizing as the antagonizing. Of course the unfolding of cosmology that began with the heliocentric conception of the universe, was such a revolution, that from Galileo down it was more and more evident that the old cosmology must perish or compromise. The Mosaic days expanded, and Yahweh's sabbatic rest was broken, until there was nothing left but a din of clashing arms. Was it science against theology? It was modern science battling with ancient science, and the voices of reconcilers piped over the field of battle like bobolinks over a charge of cavalry.

The fourth point amounts simply to this, that the new or heliocentric cosmology began to win its way. No. 5 asserts that the scholastic harmonizers yielded the field essentially. No. 6 asserts that later and more scholarly efforts at reconciliation, such as that of Dr. Chalmers and Hugh Miller, with that of Dr. McCosh, and "orthodox evolutionists" have failed.

No. 7 demands our next serious consideration. "Religion is not an ultimate fact of human nature." At this point it is quite essential to do what I have avoided heretofore, define religion. In the article of Theophilus there is a confusion in the use of this very all-important word. It is used at one time to include historic theology; at another, to cover only the rational sentiment or feeling that follows theological belief. If by religion is meant the former, that is, historic theology (that is, science applied to cause and causes), it is clear that every mind must have a religion; and Strauss is no more an exception than Talmage. Indeed, in proportion as a brain is logical, cultured and informed, it must have the



religion of causality. Talmage in that sense has not one-millionth part the religion of Strauss, or Renan, or Thomas Jefferson, or Count Cavour, or John Stuart Mill. But if by religion is meant the sentiment of honor, awe, reverence, or worship that arises in a well informed mind, then again religion is an ultimate fact of human nature. For I take it Theophilus will not deny that when a Persian kissed his hand to a star, he had an emotion, growing out of his knowledge of the universe, toward the cause, or cause of causes, involved. The implication that this ultimate fact is outgrown by any one is disposed of when you come to a correct definition of religion. The only fact (ultimate or otherwise) outgrown, is the childish methods of expressing feeling.

No. 8 is Theophilus's own effort at a definition of religion; that is, "it is a belief or a knowledge concerning an object, intelligent and supreme, analogous to the human, a personality possessing a will and power to control human destiny;—and other than nature;—conjoined with an emotion of fear, love, etc.; followed by acts of worship." This is simply a very rigid description of the dualistic conception of a Being extra-natural, such as might be very nearly given by Cardinal Newman or Professor Diman. It does not rest with saying religion is a belief in a cause or cause of causes; but it goes on to such a definition of religion that we are driven to the conviction that Socrates, Buddha, and the ancients in general, had no religion at all—so far as they were not monotheists. This no one should grant. Religion is rather, so far as knowledge is concerned (or belief), the conception any mind may have of cause in the universe, or above the universe. His assertion that such belief is followed by emotions stands true. No. 9 affirms that "this historic interpretation of religion has never been questioned until the present century, and that only of late has there been an endeavor to seek some other foundation in human consciousness, which science cannot undermine." So far as this is intended to be a denial of any attempt to escape dualism, until almost the present date, it is to overlook Lucretius and Aristotle and Spinoza and the early Kant (the real Kant); but it is not in bounds to discuss this statement. We are concerned mainly with Nos. 10 and 11, which assert the utter futility of any effort to escape dualism without a total wreckage of religion. Certainly Theophilus does not mean that we cannot either know or believe concerning the universe, and its phenomena and causes, or causality in general, without dualism. At least our modern knowledge is monistic. That is, the primal fundamental thought of modern knowledge is unity of the universe. Except for theological purposes men of information have wholly given over all thought or speech of nature, except as one,—the universe, the absolute unit. Science and philosophy alike, and in common with our humblest household talk, considers practi-

cally an infinite universe, involving all of causality in itself. I do not mean that dualism is dead; but it has no longer any part in the growing conception of nature. The revelations of the spectroscope, combined with those of the telescope, have been supplemented by the investigations of evolution, showing a vital substantiality, as certain as a material, immanent in all nature.

But how is it about the other side of religion, the emotion, the feeling, the awe, the reverence, and the consequent worship? Clearly it is at this point that Theophilus intends to say: "No vague somethings or nothings will answer the purpose. People would be as likely to love, fear or reverence 'The All' as they would a tomcat." Unfortunately under dualism tomcats were worshiped; and ideas more vengeful and malevolent are embodied in the common conceptions of dualism than any tomcat ever manifested. If Calvin had done no worse than exalt an infinite tomcat, we might at least have stroked his fur to have escaped his claws.

But the question is a pertinent one, what principles were ever involved in the infinite final cause *apart* from nature, that are not equally involved in the universal causality *within* nature? It is more and more palpable to those deepest in investigation that nature is a continuous adaptation of means to ends; and while there is no reason for believing in a Designer above and outside of nature, there can be no conception of nature apart from design. The design is persistent in nature, and not imposed from without. The era of reconcilers is fairly ending with men who speak of "pushing back" their first cause as far as possible; or, as a Bishop recently averred: "The world was fitted up for man's occupancy, with adequate means inherent, or *supplemented*, to meet all his needs." The God of supplements is the finality of dualism. But science stands here "a magnificent reign of life and law, that is unfolding year by year, and age by age, is but the pulsating presence of One, who is over all, through all, interpenetrating all." I assert that the drift of science is to affirm a universe charged with immanent divine purpose—a substantial vital universe, which is sensible, intelligent and ethical. "Looking backward we are led to universal, potential, absolute life, ever actualized in vital phenomena. Mind is what all processes involve as a substratum. Nothing is more absurd than the use of the word force as something blind, aimless and lawless. It is never, in any display of it, for one moment, anywhere, aught but the legal, volitional, purposeful direction of energy."

Are we to allow that there is in this conception of infinite, immanent, purposeful Being, no more reason for love, awe, fear and worship, than "in an Egyptian mummy"? What of good, or great, or lovable, or fearful is lost? Do we not stand related to cause and purpose quite as intimately as under dualism? But it is not



only logically possible, but historically true, that science is worshipful. The Darwinism which now controls our scientific thought is not the elder Darwinism that was absorbed in material data, but a later Darwinism, or evolution, that concerns itself with the science of data. And "science" is still "religion," as it always was. I have only to refer to Huxley's latest writings, to Tyndall's, to Professor Cope's, our most eminent American biologist, as well as Le Conte Abbott, and a host more. Science is worshipful; but instead of looking out into a limbo of the extra-natural for its worshipful object, it sees its manifested cause in nature; and in the highest manifestations it sees its true cause for adoration. Man is no longer the thing of a Creator, but the glorious presence of a moral and intelligent purposive causality.

I am aware that Theophilus shuts down his gates at the very entrance into the land of love, and hope, and religious feeling. He does well to snip off all discussion by an assertion. We have simply to deny his assertion. To go far beyond that would involve other articles rather than a brief extension of this one. I am content to rest at this point, with the counter assertion that monism alone can truly fill both head and heart; the former with knowledge, the latter with emotion.

#### KARL THEODOR BAYRHOFER AND HIS SYSTEM OF "NATURALISTIC MONISM."

BY EDMUND MONTGOMERY.

##### Part III.

Taking the sense-revealed or material universe to be the proper object of speculative investigation for the purpose of ascertaining the veritable nature of Reality or Being, we first wish to know of what this perceptible universe actually consists. Are the multifarious and diversely constituted bodies, which seem to compose it, integrant parts, differentiated and particularized from some pre-existent, all-involving totality? Or are they themselves complex structures made up of far more primitive and elementary units?

The answer given to this fundamental question determines at once the main course our further speculation must necessarily take. If we believe in a pre-existent supreme totality of Being, of which perceptible things are subordinate segregations, we inevitably land in Spinozism or some kindred mode of pantheistic Monism. If, on the contrary, we believe the perceptible things of our world to be graduated compounds of primordial elements we find ourselves, to a certainty, entangled in some kind of Atomism or Monadism.

The radical and far-reaching opposition of these two different ways of interpreting the origin of perceptible things is almost as old as philosophy itself. And to this day the schools are continuing to contend with one another on the same ground.

One would think that modern chemistry had placed

it beyond the shadow of a doubt, that perceptible objects are in all reality composed of primitive elements; and not segregated from a pre-existent totality of Being. But the unification of philosophical thought and scientific experience proceeds by slow and cautious steps; and we have here to follow its tentative efforts to establish logical consistency between different provinces of knowledge.

The atomic theory of matter, imported from Epicurus into modern speculation by Gassendi, adopted by Boyle and Newton, made to triumph in chemistry by Dalton, and in physics by Fresnel and Cauchy; this atomic theory sought and still seeks to explain the constitution of material bodies, and the manifold changes they are found to undergo, by assuming them to be composed of exceedingly minute, indivisible particles, moving in free space, colliding there in strict keeping with mechanical laws, and forming in consequence more or less coherent and relatively persistent groups or aggregates.

It is the logical tendency of this conception to reduce material particles to mere passive vehicles of mechanically imparted motion; which motion is thus held to be the true source of all activity or energy in nature. Translatory motion, transmitted through collision, is the only mode of activity allowable in logical keeping with the mechanical conception. And the ultimate elements, that are undergoing such motion, can, consequently, contain in themselves no intrinsic spring of activity. If the ultimate particles of matter were themselves capable of undergoing intrinsic changes, they could not possibly be simple or indivisible. Such intrinsic changes could nowise take place without the shifting of parts of such particles; and then these parts and not the particles themselves would be the veritable atoms. So we would have to go on *ad infinitum*, subdividing further and further the material substratum, without ever being able to come to ultimate elements, unless we suppose that at last particles are reached which are absolutely rigid or intrinsically unchangeable.

But a world consisting of rigid particles of matter would soon come to a complete standstill; for two rigid particles meeting in direct collision, with equal velocities, would altogether annihilate each other's motion. To save the mechanical world-conception from utter collapse, movable elements have themselves to be endowed, and are constantly endowed by mechanical physicists, with the intrinsic, non-mechanical spring of action, called elasticity; which inner faculty has to make good from occult sources the mechanical loss of motion otherwise inevitably incurred during direct and oblique collision.

Then, after all—if the mechanical universe is not to end in motionless stagnation—the ultimate moving particles cannot be conceived as rigid units passively shifted about by imparted motion; but must—in direct opposition



to mechanical presuppositions—be thought of as containing something *within* them, which renders them fit to re-impart an equivalent amount of moving energy, for that which would be mechanically lost through collision, if they were really rigid.

According to mechanical *theory* material particles should be absolutely rigid. According to physical *experience* they must be absolutely elastic. This is the dilemma to which mechanical physics finds itself actually driven in the material world alone, irrespective of any attempt on its part to derive mental phenomena from its mechanics of atoms. And such obvious *reductio ad absurdum* of its world-conception suffices to prove, that it must be a radically inadequate interpretation of Reality. Surely that matter which contains the "promise and potency" of everything in nature, has to possess very different qualifications for so exalted a mission.

The first great difficulty which lies in the way of an adequate interpretation of the material universe, is due to the essential contrast obtaining between the nature of what we call empty space, and that which materially fills it. Space unoccupied by matter seems to be homogeneous throughout, its entire being exhausting itself in mere extension. It is therefore boundlessly extensible and boundlessly divisible in conception, our thought encountering nowhere resistance on its voyage toward infinity one way or the other. But, with the appearance of matter in space, definite limits are at once imposed. Our thought cannot deal with such definite extension at will; but must accept the given limits as something it cannot transcend. Material bodies are certainly not boundless like space, nor are they geometrically determinable as we choose.

The question, however, still remains, whether the space thus occupied by matter is completely filled with it; and whether such matter is itself, like space, infinitely divisible or not. The Kantian philosophy, through its demonstration of the subjectivity of space-perception, and the phenomenal nature of material appearances in space, pointed out the way to a solution of this ancient and vexatious puzzle. It teaches, that what causes our individual space-perception to be filled with the content we call matter, cannot itself be conditioned by the properties of such perceptual space; which mental form of apprehension is only our own subjective mode of consciously taking in, or rather of consciously reacting against the influences emanating from the objective universe or world of things-in-themselves.

Having in the course of philosophical development become once for all clearly aware, that what we call material bodies are perceptual appearances, specifically aroused within our own consciousness by definitely constituted existents which are stimulating our sensibility, we desire to frame a logically and scientifically valid hypothesis concerning the absolute, non-phenomenal

nature of the sense-stimulating existents. What sort of Reality or Being can it be that has power to cause our individual space-perception to be thus filled with that specific content we know as the material universe? This exactly is the problem to be solved before we can legitimately escape from philosophical Agnosticism, and before we can expect to lay a sure foundation for naturalistic Monism. Whoever does not see his way to give positive information concerning the absolute, non-phenomenal nature of Reality or Being is, philosophically speaking, an Agnostic;\* and his Monism can be grounded only on faith, supported by plausible considerations; not on knowledge of the absolute state of things.

Kant himself, in his *Metaphysische Anfangsgründe der Naturwissenschaft*, made an effort to form an idea of the absolute nature of extra-conscious matter or the world-substance. To the *mechanical* conception of such matter he opposed what has since been named its *dynamical* conception. As Bayrhammer's construction of matter is based on Kant's dynamical considerations, and as it is becoming more and more evident that no true idea of matter can possibly be formed, regardless of a theory of cognition, it will be appropriate to give a rapid sketch of Kant's view.

He reasons that, though we become aware of bodily existence only in the form of figures within our own space-perception, yet during the direct perception of objects there is evidently something present, which constitutes an essential difference between physical or bodily existence and mere geometrical construction. This something is generally called matter, and must be considered the compelling cause of all percepts not originated by ourselves. Changes undergone by such matter are perceptively realized as motion; i. e. as the moving of the bodily figure within our space-perception. Matter, then, and its changes are the *object* of our space-perception, but are not *constituted* by any efficiency of our own. Space itself is an empty form; matter, on the contrary, a space-occupying existent. To occupy space, matter must necessarily possess resisting power; otherwise, with sufficient force, it would be possible to compress it into nothing. This resistance, which matter is capable of opposing to any encroaching motion, appears to us likewise as motion. Matter is therefore as such a source of motion, or a force-emanating existent. By dint of its repulsive force every one of its parts occupies space, or—what amounts to the same thing—it is continuously extended, though compressible to some extent. Elasticity is thus a fundamental property of matter. If matter were, however, possessed of repulsive force only, it could have no confining boundaries, but would disperse into infinite space. Consequently there must reside in

\*Philosophical Agnosticism is in no way directly connected with the prevalent religious Agnosticism, which professes not to be in possession of knowledge enabling it to decide for or against the existence of a personal Deity, and the possibility of individual immortality.



matter a force antagonizing repulsion. This force is called attraction. Matter is indeed out and out a product of the antagonizing tendencies of the force of repulsion and of that of attraction.

These are the essential tenets of Kant's dynamical interpretation of material existence. And not only philosophers, but eminent physicists such as Bosovich, Ampère, Faraday, Fechner and many others, have attempted, in various ways, to construct matter dynamically, by means of the mere play of forces, without the aid of any self-extended, bodily substratum.

Bayrhafer, on the other hand, does not attempt to eliminate substantial existence from the realm of absolute Being by reducing everything to mere force-irradiation. He seeks to identify such extensive force-irradiation with the intensively reacting individuality and substantiality of force-emanaing existents. He argues in the following strain:

The material universe lies open before us. All phenomena of nature emanate from it. It must therefore include in itself the essence of Being, in which the ideal and the real of our world are inseparably united. And so we actually find it. For every concrete perceptible being or thing consists of a union of subjectivity and objectivity; is in fact subject-object, or a center of interaction. The substratum of natural phenomena, usually called matter, is evidently replete with interacting efficiencies, which sensibly manifest themselves as attractions and repulsions of constituent parts.

Of course, it is understood that matter, as it mentally appears to us, is merely a phenomenal reflex of the interacting entities that constitute veritable or absolute Being. And it is therefore only through speculative analysis of material *phenomena* that we can arrive at a consistent conception of the ultimate existents and efficiencies which give rise to such phenomena. The ever-changing unification and dissipation of material objects within our subjective perception allows us to conclude, that Being, i. e. the existent which compels these objective appearances in our perception, is itself changeably composed of elements that stand in effective and mutable relations to one another. For an original manifoldness or plurality within Being necessarily presupposes an original plurality of Beings. If eternal and absolute Being were in verity a single, ever-identical existent, without intrinsic manifoldness and opposition, there could exist no reciprocal relativity of its parts, and consequently no effectuation and change, and thus no phenomenal world. It is indeed utterly unintelligible how manifoldness and opposition could possibly arise within a self-identical totality. Consequently eternal or absolute Being must be composed of contiguous elements, that through their various modes of interaction among one another are forming an articulated system of Being, whose perceptually reflected representation is the material universe.

These self-existent elements of Being have to be conceived as substantial; for mere extended form, devoid of substantiality or essence, would consist of nothing but empty space. If—as has often been done—the essence of matter be conceived as mere extension and divisibility, then matter would necessarily be composite *ad infinitum*. To assume with Spinoza and Kant the divisibility of the form without the divisibility of the essence is illogical; for how can there be form without essence; the two are ever inseparable. The matter which appears in perception being manifestly extended and divisible, it follows that it must be composite so far as its divisibility goes. But as it cannot be composite *ad infinitum*, it must consist of ultimate, simple and indivisible elements. This is the truth that underlies the atomic theory of matter. In speculative philosophy, however, the atom becomes a monad, i. e. an indiscerptible unit of Being constituting a center of interacting efficiencies. Leibnitz was philosophically justified in setting up a system of monads in opposition to Spinoza's single extended and thinking substance. His dictum: "There are composite beings, hence there must be simple beings," however much contested, remains irrefragable to this day.

(To be continued.)

#### THE CONDITIONS OF LIFE.\*

BY W. PREYER.

Part II.

Translated from the German by F. W. Morton.

All the numerous advantages which society confers on living beings in such a way that they become conditions of life, are yet of a different order and, though highly important, are of incomparably less significance than those factors which are indispensable to every organism for the mere preservation of activity. The former are only indirectly, the latter are directly necessary; the former may for a time at least be removed, the latter cannot be removed for a moment without the greatest injury to the living being; the former are secondary, the latter are primary in so far that these must be all fulfilled before those can exist at all. The *direct external conditions of life* are therefore fundamental. They are basic conditions. They are also much better known than those complicated conditions which are regulated by the relation of one organism to another.

First of all it needs no proof that by a removal of the air breathing ceases, and thereby life becomes extinct. Indeed, many languages have for "die" and "expire" the same word. It is entirely safe to assert that everything which lives, also breathes. *What does not breathe does not live.* By this, breathing must only be taken in the wider sense—not as it signifies respiration, but as it means the working over of the air received in the inner organism.



This air need not have, however, strictly the same composition as the atmosphere which actually surrounds the earth. Apart from all accidental constituents of air—those which are of no importance whatever for life—even the three essential gases of carefully purified, dry, common, atmospherical air are not all demanded. The little amounts of carbonic acid gas are necessary for plant life, but wholly superfluous for animal life; and indeed where these rise to a certain amount they are detrimental. This constituent is therefore not a condition of life for *all* organisms. The same is true of the *nitrogen* of the air. It can in many cases be supplanted by another indifferent gas, hydrogen, without perceptible injury; it can also be entirely eliminated from the air we breathe without producing injury to any organism. The third gas, on the contrary, oxygen, must not be wanting where living beings are to exist.

Numerous experiments tried on plants and animals and repeated observations in respect to men in mines and badly-ventilated places, have shown that the removal of oxygen or the supplanting of this gas by another inevitably extinguishes the flame of life. It is indeed not strictly necessary that as much oxygen should be present in the air as we actually find in it. There could, without the slightest injury to life, be more or less of this life-air in the gaseous sea which covers the earth. Moreover, the amount of oxygen—and this varies within wide bounds—confined in the water of the ocean, lakes and rivers may be considerably increased, and, at least in the cold season of the year, decreased without injury to life. But a certain quantity of oxygen is as indispensable to the life of organized bodies as it is to the burning of a taper.

Pasteur, it is true, has asserted that there are beings which live without free atmospheric or absorbed oxygen, beings upon which the air acts fatally. These are *anaerobias*, vegetable ferments, without individual motion, and *vibriones*, with individual motion.

But however carefully the experiments were made, however certain it was that every trace of atmospherical oxygen was excluded, every proof was wanting that oxygen was not constantly developed somewhere in the mass and that it was consumed by the tiny organisms. We may perhaps suppose that those lower forms of life can only use the active oxygen, that is, oxygen at the moment of its generation; while the other organisms require also the inactive oxygen which they transform in part into ozone. At all events, from the fact that fermentation processes take place whose ferments are living beings, which can live for a period with a complete exclusion of atmospherical air and multiply at the cost of the fermenting material, it cannot be concluded that there are living bodies which need no oxygen gas, and therefore do not breathe. It can only be provisionally concluded that the oxygen of the air, be

it the gaseous or that freed from water, is not indispensable to life for all living bodies at the same time

Why could not these *vibriones* consume the oxygen which they themselves set free, just as plants consume the oxygen of the same atmosphere into which they discharge the oxygen developed by themselves? Are there not plants which in an enclosed space free from oxygen generate oxygen by day and again absorb it by night, and thus live for months? Water, sugar, tartrates, phosphates, which further the life of ferments, all contain much oxygen. Why could it not be set free from these by the *vibriones* as it is set free by plants from fixed chemical compounds that are rich in oxygen? In the same way this is true of the isolated living organs of higher organisms. If in a vacuum a muscle continues to twitch and the nerve preserves its sensibility, it does not necessarily follow from this that it consumes no oxygen.

No plants thrive without oxygen; no animals; and the more complex an organism is, the greater is its need of this life-gas. Its importance for life is fundamental. Thus the discovery of oxygen by Priestley, August 1, 1774, marks the beginning of a rational investigation of life, the beginning of modern physiology, whose corner-stone the discoverer himself laid when he recognized the great similarity between respiration and combustion.

Indispensable, moreover, as oxygen is to life, it has only one advantage over the other external conditions, viz., that its withdrawal—especially in the animal kingdom—very speedily brings the life-process to an end. As to the others, the second condition, viz., the presence of *water* in the immediate environment of the body, is of equal importance. The old chemical maxim, at first only conjectured but subsequently established over and over again by numberless facts, pronounced for living beings this law: *Corpora non vivunt nisi humida*: without humidity no life. Generally speaking dryness is the worst enemy of organized beings. The sterile, parched, reddish-yellow district in the heart of Sicily, before the rainy season begins, forms the strongest contrast with the bright green mantle with which spring adorns the Catanian fields.

The immeasurable importance of water for the development and maintenance of life is shown still more clearly in the animal kingdom than in the vegetable world with which it is inseparably linked. The sea is the cradle of animated nature, and its inexhaustible storehouse; from which come forth to the eye of astonished man ever new and still again ever new organic forms. It is at the same time the archive of the history of life, which even now preserves in its dark depths living witnesses, still unchanged, of long past periods. Even of the chalk period a few surviving forms have been found in it, which thus exist, at the same time fossilized and



living. On the other hand, wherever on the earth water is wanting, or in the air water-gas is not found, wherever from cloudless skies the sun sends down its scorching rays for months at a time on the thirsty earth, there plants perish, and even the stray animal tries with fleeting feet to escape from these dead regions.

The reception of oxygen is impossible without water. Never does an alkali unite with carbonic acid without water, if both are wholly dry. Much less can the numberless chemical unions in the bodies of animals and plants—in which for the most part material of much weaker power is found—take place without humidity. Therefore, there is no living body which does not continually receive water.

Not only must the medium in which the organism lives be constantly humid or wet, but—and here we come to the third condition of life—everything that is absorbed in the interior of the organism and everything that constitutes its nourishment, invariably contains water.

All animal and plant nourishment contains water. The wholly dry food materials, moreover, are less useful for the prevention of starvation, as are also the chemical elements of which they are composed. It is one of the characteristic properties of living bodies that they can under no circumstances continue to live when all the constituents of their nourishment are offered them in the elementary condition. Besides, it is impossible, so far as investigations have yet shown, for the simplest living being to assimilate the elements, unless they be already present in certain combinations, in the form of salts (sulphates, phosphates, chlorides), and in that of gases (carbonic acid gas) for plants, or in still more complicated combinations for animals. To these last, the albumen formed by the plants must be furnished already made, since they have not the power to assimilate these materials from the elements or simple combinations.

When we reflect, therefore, that animals are dependent upon plants which prepare for them the necessary food-materials from earth, air and water, we can comprehend that all animals and plants, and likewise all animal and plant foods, consist of the same elements; that the suckling is composed of the selfsame fundamental matter as the milk which he drinks, the deer of the same as the grasses which he transforms into flesh, and the bird of the same as the egg from which it has been hatched.

Thus these three external conditions of life may be brought together in this expression: A certain number of the elementary constituents of the earth's crust must be present in certain combinations and amounts in immediate proximity to the organism, so that it can assimilate these materials. The elementary substances which are indispensable to life are: *Carbon, hydrogen, nitro-*

*gen, oxygen, sulphur, phosphorus, chlorine, calcium, magnesium, potassium, sodium, iron,* and probably also *silicon and fluorine*. Of the remaining half hundred of the known chemical elements, none is found in the organism as a constant integral part or constituent. These, therefore, need not be received in the nourishment. The fourteen named suffice to produce the vast complexity of forms in animated nature, to make breathing, nourishment, growth, motion and perception possible. By the union and separation of these fourteen elements, nature aims to accomplish the wonders of life in all its past and present forms.

The principal three fundamental conditions of life, *oxygen, water and food* must, in order to be permanently useful for the maintenance of life, have several special qualities or properties. Above all these materials must have a certain temperature. *Without heat no life*. When the normal heat of a living body greatly decreases, its life ceases. Indeed, the process of animal life consists in a large measure in an unbroken generation of heat, namely, by a union of the received oxygen with the constituents of the food. But it is easy in all cases by merely cooling off the surrounding medium, water, air or earth, to overbalance the heat given off by the organism, and thus bring the thermal process, and with it life, to an abrupt end. How great the necessary minimum of heat must be, cannot be stated in general terms, but it must be specially determined for each separate case, and then again for each separate function. For all organisms in common, we may name as the lowest temperature at which the exchange of matter still continues, the freezing point of water. But this conjecture has reference to the inner temperature of the plant or animal body, not its environment. When the water in the body becomes ice life ceases, since the life process requires the fluid state of aggregation. There is no existing reason, however, why an idiothermic polar animal should not continue to exist in an atmosphere at zero, with nourishment at zero, and with water at little above zero. Nevertheless, this much is evident, that generally most organisms could not survive in a medium of permanent zero degree, and that in the warm season of the year, on the contrary, more forms of life will be developed than in the cold.

It is likewise difficult to determine the maximum heat which living beings can endure. It is only probable, that in a medium of 50° Celsius nothing living can prolong life and that the temperature of no organism could rise permanently above 46° without the greatest danger to life. Within these limits, probably all life is included.

In respect to the three primary necessities of life themselves, we may likewise inquire whether there be a maximum limit. Does death result from the reception of too much oxygen, too much water, or too much food?



Just as by the reception of too little oxygen suffocation results; of too little water, languor; or of too little food, starvation.

Generally, in plants the injuriousness of undiluted oxygen is proven. Among animals, likewise, death takes place quickly in oxygen gas of several atmospheres, although they retain life in pure oxygen gas of one atmosphere. When the reception of oxygen is artificially facilitated for animals a comfortable state of rest is induced, the motions of respiration cease, and an unfavorable result from this suspension of respiration to health is unknown. Moreover, a superabundance of water is, as is well-known, fatal to many plants; but whether there is an animal which perishes through immoderate drinking of water is to be questioned. By the too copious reception of food there is scarcely any living body which will lose its life if the food has only good constituents, for the receiving organs permit only an intermittent filling. There are animals which in a single day take as much food as they themselves weigh. Still it is not to be overlooked that by regular overloading the stomach with food-material injuries to health may arise. We must here also assume a maximum limit. But the danger of prostration or even of death from too much air, water or food, is much less than that arising from want of these necessary requirements, or the bad composition of the same.

Upon the whole, then, the immediate necessities of life are included within narrow limits. Others than the three named cannot be mentioned. Light, so important for the green plants, is in no wise necessary for all organisms without exception. Whatever lives in the greatest depths of the sea knows only night. Many entozoa in the dark inwards of higher animals, and larvae, in the interior of flowers and in the earth, are, likewise, in the same condition.

(To be continued.)

#### IDEALISM, REALISM AND MONISM.

The history of modern philosophy begins with Descartes, who, in search of a solid basis for philosophical knowledge, proclaimed the famous dictum: "*Cogito, ergo sum*," "I think, therefore I am." Descartes was convinced of the irrefutability of this sentence, which his contemporaries also considered a fundamental truth, and thus the belief in our existence, viz.: the existence of the thinking subject, became the corner-stone of modern philosophy.

Kant has proved that the conclusion of Descartes's syllogism is a fallacy. The existence of the *ego* which is arrived at in the conclusion *ergo (ego) sum*, is contained in the supposition (*ego cogito*). Accordingly, the fact to be proven is an assumption.

In spite of this mistake the *cogito ergo sum* of Descartes still remains the true starting point for philo-

sophical thought. The ego is the first and fundamental problem of all problems. Here is the spot to place the lever of philosophic inquiry. And indeed the ego has been from the beginning, and still is the subject of modern philosophy.

Descartes, who leads the van, assumed the existence of the ego as a fact. Kant, who closes the first epoch, and who marks at the same time the beginning of a new era of philosophical development, pointed out the logical fallacy in this syllogism. The chief work of Kant's philosophy is, as he styled it himself, to take the inventory of pure reason, which would contain and account for all the faculties of the thinking subject, and modern psychology proves that the ego of the old schools is a superstitious notion. The ego is no discrete entity, no eternal unit and thing in itself, but the result of a very complicated concurrence, a kind of co-operation of organic activity; it is the psychical expression of our whole bodily organism. To use Ribot's words: the ego is not a cause but an effect. The ego in the old sense of the term is a fallacy. It is the basis of dualism, and has been the source of innumerable superstitions.

Idealism is that conception of the world which takes the subject, the ego and its realm of ideas, as starting point. Modern philosophy since Descartes has, therefore, been called idealistic. Philosophic idealism since Descartes found a strong opposition in scientific tendencies, which followed their own direction and were developed almost independently of philosophic speculation. Accordingly philosophy and science were long considered antagonistic.

Realism is that conception of the world which takes the object, the real world and its phenomena, as starting point. As idealism assumes the existence of the ego, or the subject, so realism assumes the existence of things, or the objects.

Idealism as well as realism attempted to construct a philosophic system, consistent in itself and in harmony with the given facts of our experience. In their eagerness to reach this ideal both parties boldly ventured the conclusions which could consistently be drawn from their respective principles. Idealism hoped to realize a unitary and consistent conception of the world by declaring that the subject alone exists. Such idealists identified consciousness and reality and denied the objective existence of anything which lay beyond the ego. According to Berkeley the subject is the All, and in Fichte's philosophy the absolute ego is God. This exaggerated idealism is generally called spiritualism.\* Spiritualism explains the world solely from spirit, i. e. the substance of which the subject is supposed to consist. Matter does not exist, and what we call things are concepts of the subject.

\*Spiritualism is to be carefully distinguished from Spiritism in the popular acceptance of the word; this latter is Spiritism, or the belief in spirits.



Realism, on the other hand, identified objective existence (viz., matter) with reality, forgetful of the fact that many things (e.g. force, spirit, etc.) are real although they are not included in the term matter. Then realism declared that matter only exists; and matter was defined as the substance of which reality and the objects of our experience consist. This form of realism is generally called materialism. Materialism tries to explain all phenomena of the world, the phenomenon of consciousness included, from matter and from matter only.

Idealism, with some modifications which it suffered from the influence of the scientific notions of its time, developed the gigantic structure of a dogmatic system which was shaped and elaborated by Wolff, a German philosopher of great constructive ability. Realism, termed sensualism, by the English philosopher Locke, took the very opposite course of development. Baron Holbach, in France, formulated the conclusions of realism as a materialistic system, but the keen Scotch philosopher Hume, unable to account for the causal connection of phenomena, boldly pronounced his skepticism as the result of a philosophy which started from the assumption of realism. In materialism the unity of reality, the unity of the objective world which surrounds the subject, was lost. Cause and effect could not be considered as necessarily connected, but had to be regarded as two independent phenomena, and all we can say is, that according to our observation the effect has always followed the cause. Cause and effect form a synthesis, and the law of cause and effect, or the necessary sequence, cannot be proven.

Thus, in the course of time, idealism and realism had lost sight of one another, each finding itself hopelessly entangled in its own premises, the former as unwarranted dogmatism, the latter as desperate skepticism. Both had fulfilled their mission. They had accomplished all that they were capable of, but neither had attained the aim intended.

The progress to a higher stage of thought could only be effected through a reconciliation of both principles, and this task was accomplished by Kant, whose philosophy, as he himself professed, was a combination of Wolff's dogmatism and Hume's skepticism. Kant named his philosophy critical idealism. He might just as well have termed it critical realism, for Kant's philosophy is neither the old idealism nor the old realism, and, as expressive of the Kantian *method* of thought, the best name is undoubtedly *criticism*. Kant laid the foundation for a new conception of the world which in the course of the last half century was called monism, because it truly realizes the ideal of idealism as well as that of realism; it affords a consistent and unitary conception of the world.

Kant taught that only our sensations are real, things

are the creations of our minds,\* and our reason shapes the things out of the material of sensations, which is furnished by experience. Sensations by themselves, Kant says, are *blind*, the forms of pure reason are *empty*. Sensations which are not formed and orderly arranged by reason have no value, they cannot constitute knowledge; and speculative thought, if it dispenses with the reality of experience as afforded by sensation, is a vagary of pure reason and must be classed under one heading with hallucinations.

Kant was too honest in his inquiries to jump at conclusions or to anticipate the results of his philosophy. He was misunderstood for a long time. His system was admired for its labyrinthian intricacy of structure and derided for the same reason. He was both praised and blamed by men of the same and of opposite parties, in the one instance as the defender of the old dogmatism, and in the other, as the author of a systematized skepticism. He had thrown all philosophy into confusion. Everyone perceived that something of vital importance had happened, that a decisive victory had been gained. But as is often the case after a battle, the soldiers who were engaged in the fight did not know whether theirs was the winning or losing party.

The exposition of Kant's philosophy came from a quarter whence it was least expected, viz.: from the natural sciences. The natural sciences one by one confessed to have attained to the same results that had been anticipated in Kant's criticism, and thus the greatness of Kant was more and more recognized in the comprehensiveness of his radical and sweeping arguments.

Monism, which is the outcome of Kant's criticism, considers the world as one immeasurable, continuous whole, and in consequence thereof demands that a conception of the world must be consistent, free from contradiction, and in harmony with all facts. Monism accepts the view of idealism in so far as our knowledge of the world rests on and indeed is identical with self-cognizance. The true starting point of philosophy is still the *γινῶσι σεαυτόν* (know thyself) of the Delphian oracle. On the other hand it accepts realism. Reality, as it appears to our senses, is no mere sham; reality is the material, and, indeed, the only material out of which the lofty structure of our concepts and the whole conception of the world is built.

\*Albert Lange, in his *History of Materialism*, answers the question, "What is a Thing?" by the following concise statement:

"We give the name of *thing* to a group of phenomena which we conceive as one. In this definition remote relations and internal changes are not taken into consideration." And Professor Ludwig Noiré, accepting this view, adds (*Philosophy of Language*, p. 99):

"It follows undoubtedly from this definition that things have no existence for animals; for even the most extreme Darwinian will hardly venture to maintain animals to be capable of this."

"To men a tree is a single being or thing which grows from the root upward, and has a trunk and branches; but this is just what it can never be even to the most highly endowed ape that climbs about its stem and has accustomed dwellings and places of refuge under the well known leafy roof. It is beyond the limits of possibility that any monkey tribe should ever endeavor to take up a tree by the roots and plant it in another spot."



Monism rejects idealism in so far as it is spiritualism, viz.: in so far as it attempts to conceive of the world as a mere fiction of the imaginative faculty, in so far as it explains the world from a spiritual substance which is assumed to have an independent existence and to be the nature of the ego. According to monism, spirit independent of matter does not exist; and matter by itself, or a thing which is matter and nothing but matter, does not exist either. But both are real; both are names which express our notion of certain manifestations of reality.

Monism rejects realism in so far as it has become materialism, viz.: in so far as inert matter, and only matter, is made the principle of explanation for phenomena. Matter is one of our concepts abstracted from reality and science is still at a great distance from having formulated a correct conception of matter which will serve to account for all the phenomena of the so-called organic as well as the inorganic empire. Materialism it must be acknowledged is right in so far as it declares that all objective existences of reality are material, but materialism overlooks the importance of form. It is the form of things that makes them what they are and appear as they are. Matter alone will never be made to account for the problems of nature.

Thus in monism, both idealism and realism are reconciled, while spiritualism and materialism, representing the wrong conclusions of the one-sided assumption of idealism and realism, find their refutation.

#### HEAVENLY REST.

BY WM. SCHUYLER.

Good people struggle through this life,  
Hoping for Heaven's rest,  
Where there shall be no toil nor strife;  
But all be calm and blest;

Where all the saints who enter in  
Err not, nor ever could—  
Being, in perfect lack of sin,  
Machines for doing good.

But surely such a scheme as this—  
Pure goodness, nothing more—  
Turns an eternity of bliss,  
To an eternal bore.

#### CORRESPONDENCE.

##### INTERNATIONAL COUNCIL OF WOMEN.

JAMAICA PLAINS, MASS.

To the Editor of THE OPEN COURT:

I think THE OPEN COURT should have a word of the International Council of Women at Washington, for it was a remarkable instance of a council where the most perfect freedom of expression was allowed, and where the discussions were dignified and weighty, and must have a wide influence.

The speeches have so fully reported in the daily and weekly press, that it is not worth while to speak of them here. It was not so much the eloquence and ability of the speakers that

commanded attention as the importance of their subjects. Thus, the paper which received the highest compliment, the audience rebelling against the chairman stopping the speaker when her time was up, was a very solid, earnest plea for thoroughness in woman's preparation for the study of medicine, and it was evidently the clear presentation of the subject, and not any charm of rhetoric or pathos, which held the interest of the audience.

No meeting was more impressive than that devoted to social purity, and I believe every heart was impressed with the conviction that this was the great moral need of our time, and that a higher standard of character for both sexes could alone redeem our society from ruin.

The general tone of the meeting was unexceptionable, and was seldom marred by extreme statements or violent denunciations; while the religious character of the council was shown by the Sunday services, which began and closed it. They were marked by broad liberal spirit and freedom from sectarian antagonisms or bigotry. The Methodist and the Free Religionists found common ground in their interest in the welfare of humanity.

Another point of interest was the ability shown by many younger women not yet known to fame. They were the graduates of our high schools and colleges, and their work showed that the higher education of women during the last thirty years is beginning to bear fruit.

The attitude of the press, of the audiences, and of the community generally towards the council has been respectful and friendly (with few exceptions). All believed that the women came because they had earnest thought and purpose, and those who spoke, spoke of what they had seen and known. The very programme, in its list of subjects, was suggestive and instructive, and a great impulse has been given to thought and life throughout the length and breadth of the land.

The presence of the foreign delegates added greatly to the interest of the occasion.

E. D. C.

#### BOOK REVIEWS.

SEA-SIDE AND WAY-SIDE. No. 1. *Julia McNair Wright*. Boston: D. C. Heath & Co. 1888.

This little book is unquestionably one of the best publications of its kind. It will be useful, not only as a reader, but also as a text-book of natural science for young children. The author believes that the first information imparted to a child should consist rather of scientific facts than trivial sentences, and has composed some lessons fresh from the sea-shore and the field where life is seen not in an abnormal state of captivity but in its own chosen home and natural sphere of development. In concise and strong Saxon language the child is told how Mr. and Mrs. Crab live at the sea-side, how the shell-fish lives, how the bees build their hives, etc. This new idea of a combined reader and text-book of natural science cannot fail to become an educative power of great value in the culture of the youthful mind.

The frontispiece of the *Art Amateur* for April, 1888, is an admirable wood-cut from A. Gilbert's etching of a portrait of Philippe Rousseau, the celebrated painter of animals and still life. We wish it were accompanied by a sketch of the artist's life, as we would like to know the true history of every one who adds new luster to a name so distinguished in French literature and art.

The talks on Japanese Art are continued, and we hope they will help to excite sufficient interest in the subject to secure the purchase of the admirable collection of Prof. Edward Morse for one of our leading art museums.

Theodore Child gives an encouraging account of the exhibition of the Philadelphia Academy.

Greta writes in her usual lively manner about art in Boston,



which unfortunately leaves on the mind the impression that she cares more for saying a smart thing than a true one.

Robert Jarvis gives the first part of an interesting article on Decorative Art, showing its high value, and illustrating the thorough work needed to do it justice, by a sketch of the life of Pierre Victor Galland, with engraved illustrations from his works.

The designs in this number are bold and free, and the colored print, representing cherries, is full and rich.

The Flash-light receives much attention in the photographic columns as well as the new subject of Keranography, or photographing by lighting.

A Dictionary of Furniture and Decoration, by M. Henri Harvard, is announced as at last ready. Mrs. Wheeler continues her talks about embroidery, and certainly if success can give claim, she has a right to speak as one having authority in the matter. Many useful, practical hints are given which make this magazine of great value to the student and amateur.

*Libertas* is the title of a German edition of *Liberty*, a Boston paper, which preaches Anarchism. The editors of *Libertas* are Mr. and Mrs. Schumm. The first three numbers show that the management is sober and judicious; their anarchism is not a dynamite revolution, but the more peaceful ideal of extreme individualism as is represented by Proudhon. While sympathizing with the work of the editors, we cannot agree with their views, and we doubt very much whether they will find a hearing among the German-American public. Germans as a rule are opposed to anarchism, and a few obnoxious individuals, such as Herr Most and his friends, have succeeded in making the very name odious.

The *Atlantic Monthly* for May contains a timely and fascinating article by Herbert Tuttle on "The Emperor William." It is remarkable how faithfully the author has portrayed the venerable hero of Sadowa and Sedan. Though not in style and comprehensiveness, but certainly in judgment and just appreciation, Herbert Tuttle's essay reminds us of the valuable labors of Carlyle.

Thought is deeper than all speech,

Feeling deeper than all thought;

Souls to souls can never teach

What unto themselves was taught.

—C. P. Cranch.

That very law which moulds a tear

And bids it trickle from a source,

That law preserves the earth a sphere

And guides the planets in their course.

—Rogers.

Comes a high-born thought this hour,

Let it from you never,

Till you have it in your power

Ever and forever.

If on duty's path you go,

And a sorrow press you,

Close with it as with a foe,

Fight it till it bless you.

—From the German of Scherer, translated by Mary Morgan (Gowan Lea).

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XIII.—Continued.

Thus an hour passed in pleasant talk till the clock struck, and Ilse rose hastily. "My husband will wonder where I have disappeared to," said she. "You are a dear girl; if you like we will become good friends."

Ah! that pleased Laura very much. She accompanied her visitor to the staircase, and on the step it occurred to her that she had forgotten her main point; her room was directly above that of the Professor's wife, and when Ilse opened the window she could communicate quickly with her by signals. Just as Ilse was about to close her door, Laura ran down once more in order to express her joy that Ilse had granted her this hour.

Laura returned to her room, paced up and down with rapid steps, and snapped her fingers like one who has won the great prize in a lottery. She confided to her journal her account of the whole consecrated hour, and every word that Ilse had spoken, and concluded with verses:

"I found thee, pure one! Now my dream will live.

And tho' 'twixt joy and pain thy soul may pine,

I touch thy garment's hem and homage give,

And lovingly thee in my heart enshrine."

Then she seated herself at the piano and played with impassioned expression the melody which Ilse had sung to her. And Ilse below heard this heartfelt outburst of thanks for her visit.

## CHAPTER XIV.

A DAY OF VISITS.

A carriage drove up to the door. Ilse entered her husband's study, attired for her first visits. "Look at me," she said; "do I look all right?"

"Very well," cried the Professor, joyfully, scanning his wife. But it was well that everything was as it should be without his help, for in matters of the toilet the critical eye of the Professor was of doubtful value.

"Now I begin a new game," continued Ilse, "such as the children used to play at home. I am to knock at your friends' doors and call out, Halloo, halloo! and when the ladies ask, Who is there? I shall answer, as in the game.

"I am a poor, poor beggar-maid,

And what I want is this:

For me I want a piece of bread;

For my husband I want a kiss."

"Well, so far as the kisses which I am to dispense to the wives of my colleagues are concerned," replied the Professor, putting on his gloves, "I should, on the whole, be obliged to you if you would take that business upon yourself."

"Ah, you men are very strict," said Ilse; "my little

\*Translation copyrighted.



Frank also always refuses to play the game, because he would not kiss the stupid girls. I only hope that I'll not disgrace you."

They drove through the streets. On the way the Professor gave his wife an account of the persons and the peculiar branch of learning of each of his colleagues to whom he was taking her.

"Let us visit pleasant people first," he said. "Yonder lives Professor Raschke, our professor of philosophy, and a dear friend of mine. I hope his wife will please you."

"Is he very famous," asked Ilse, laying her hand on her beating heart.

The carriage stopped before a low house at the further end of the suburb. Gabriel hastened into the house to announce the visitors; finding the kitchen empty, he knocked at the parlor door, and, finally, being experienced in the customs of the family, opened the entrance into the court-yard. "Herr and Frau Professor are in the garden."

The visitors passed through the narrow yard into a kitchen-garden, which the owner of the house had given his lodger permission to walk in, in order to get the benefit of the air. The couple were walking along the path under the noon sun of an autumn day. The lady carried a little child on her arm; the husband held a book in his hand, from which he was reading to his companion. In order, however, to do as much family duty as possible, the Professor had fastened the pole of a baby carriage to his belt and thus drew a second child after him. The backs of the couple were turned to the guests and they moved slowly forward, listening and reading aloud.

"An encounter in the narrow path is not desirable," said Felix; "we must wait until they turn round the square and face us."

It was some time till the procession overcame the hindrances of the journey, for the Professor, in the eagerness of reading, sometimes stopped to explain, as might be seen from the motion of his hands. Ilse examined the appearance of the strange pedestrians with curiosity. The wife was pale and delicate; one could perceive that she had recently left a sick bed. He had a nobly formed, intellectual face, about which hung long dark hair with a sprinkling of gray upon it. They had come close to the guests when the wife turned her eyes from her husband and perceived the visitors.

"What a pleasure!" cried the Philosopher, dropping his book into the great pocket of his coat. "Good morning, colleague. Ha! that is our dear Frau Professorin. Wife, unhitch me from the carriage, the family bonds confine me."

The unhitching took some time, as the hands of the mistress of the house were not free; and Professor Raschke by no means kept still, but struggled forward,

and already held fast with both his hands those of his colleague and wife.

"Come into the house, my dear guests," he exclaimed, striding forward with long steps, while Felix introduced his wife to the lady. Professor Raschke forgot his baby carriage, which Ilse lifted over the threshold and rolled into the hall. There she took up the neglected child from its seat and both ladies entered the room with a little specimen of philosophy in their arms, exchanging the first friendly greetings while the little one in Ilse's arms swung his windmill, and the youngest learned child on the arm of its mother began to scream. Meanwhile colleague Raschke went about clearing the room, removed books and papers from the sofa, shook faded sofa-cushions into form, which emitted a cloud of dust, and cordially invited his guests to be seated. "But how is this?" he said; "you are troubling yourself with this doll. Is it the baby? No; I see it is the other," he said, correcting himself, "which will be less troublesome."

At length the party seated themselves. Ilse played with the child on her lap, while Frau Raschke disappeared for a moment and came back without the screaming infant. She sat shyly by Ilse, but asked her friendly questions in a gentle voice; the lively Philosopher, however, was always interrupting the conversation of the ladies; he stroked the hand of the Professor, while he nodded to his wife. "This is quite right; I rejoice that you accustom yourself to our mode of life while still so young, for our wives have not an easy time of it—their outer life is limited and they have many demands made upon them at home. We are often wearisome companions, difficult to deal with, peevish, morose, and perverse." He shook his head disapprovingly over the character of learned men, but his face smiled with genuine pleasure.

The end of the visit was hastened by the baby, which began to cry piteously in the next room.

"Are you going already?" said the Philosopher to Ilse; "this cannot be counted as a visit. You please me much, and you have true eyes; and I see that you have a kind disposition, and that is everything. All we want is, in the face a good mirror through which the images of life are reflected fully and purely, and in the heart an enduring flame which will communicate its warmth to others. Whoever has that will do well, even if it is her fate to be the wife, as you are, of a sedentary student, and as is this poor mother of five screaming young ones."

Again he strode fidgeting about, fetched an old hat from the corner and handed it to the wife of his colleague. Ilse laughed.

"Oh, I see, it is a gentleman's hat," said Professor Raschke; "it belongs to your husband."

"I also am provided with one," said the Professor.



"Then it must be my own after all," said Raschke; and ramming the hat on his head, accompanied his guests to the carriage.

For some time Ilse sat in the carriage dumb with astonishment. "Now I have courage, Felix; the professors are still less alarming than the students."

"All will not receive you so warmly," answered the Professor. "He who comes next is my colleague Struvelius; he teaches Greek and Latin, as I do; he is not one of my intimate acquaintances, but is a thorough scholar."

This time it was a house in the city; the appointments were a little more ancient than in Ilse's new dwelling. This professor's wife wore a black silk dress, and was sitting before a writing-table covered with books and papers; a delicate lady, of middle age, with a small but clever face and an extraordinary coiffure; for her short hair was combed behind her ears in one large roll of curl, which gave her a certain resemblance to Sappho or Corinne, so far as a comparison can be made with two ladies of antiquity, the growth of whose hair is by no means satisfactorily ascertained.

Frau Struvelius arose slowly and greeted the visitors with stiff demeanor; she expressed her pleasure to Ilse and then turned to the Professor. "I have to-day commenced reading the work of colleague Raschke and I admire the deep thought of the man."

"His writings are delightful," replied the Professor, "because in all of them we perceive a thorough and pure-minded man."

"I agree in your antecedent and consequent in reference to this colleague, but as regards the general tenor of your sentence, I must remark that many works forming an epoch in literature would have no true claim, if it were necessary to be a perfect man in order to write a good book."

Ilse looked timidly at the learned lady who had ventured to oppose her husband.

"Yet we will come to an agreement," continued the professor's wife, fluently, as if she were reading from a book. "It is not requisite for every valuable work that its author should be a man of character, but he who truly has this noble qualification would be unlikely to produce anything which would have an unfavorable influence on his branch of learning; undoubtedly the weaknesses of a learned work originate more frequently than one supposes in the weakness of character of the author."

The Professor nodded assentingly.

"For," she continued, "the position which a learned man assumes with respect to the great questions of the day, affecting his branch of learning—nay, even the advantages and deficiencies of his method—may generally be explained from his character. You have always lived in the country," she said, turning to Ilse. "It would be

instructive to me to learn what impression you have received of the mutual relations of people in the town."

"I have met but few as yet," rejoined Ilse, timidly.

"Of course," said Frau Struvelius. "But I mean that you would observe with surprise that near neighborhood does not always call for intimate intercourse. But Struvelius must be told you are here."

She rose, opened the door of the next room, and standing bolt upright by the door, called out:

"Herr Professor and Frau Werner."

A slight murmur and the hasty rustling of leaves were heard in the neighboring room. The wife closed the door and continued:

"For after all we live among many and associate with only very few. In the city one chooses from among many individuals with a certain arbitrariness. One might have more acquaintance than one has, but even this feeling gives you confidence, and such confidence is more easily acquired in town than in the country."

The side door opened. Professor Struvelius entered with an absent-minded manner, a sharp nose, thin lips and also with an unusual head gear. For his hair stood so peculiarly after its own fashion, that we are justified in assuming that this head gear was hereditary and had given the name to his family. He bowed slightly, pushed a chair forward and seated himself in it silently—probably his thoughts were still occupied with his Greek historian. Ilse suffered from the conviction that the visit was an inopportune interruption and that it was a great condescension on the part of his wife to speak to her at all.

"Are you musical?" said Frau Struvelius, inquisitively.

"I can hardly say so," answered Ilse.

"I am glad of it," said the hostess, moving opposite to her and examining her with sharp eyes. "From what you appear to me, I should think you cannot be musical. This art makes us weak and leads too frequently to an imperfect state of existence."

Felix endeavored, with little success, to make the Professor participate in the conversation; and the visitors soon rose. On taking leave, Frau Struvelius stretched the under part of her arm in a rectangular line toward Ilse and said, with a solemn pressure of the hand:

"Pray feel yourself at home with us." And the words of her husband, bidding them adieu, were cut short by the closing of the door.

"What do you say now?" said the Professor, as they drove away.

"Ah, Felix, I feel very insignificant; my courage is gone, I would rather return home."

"Be composed," said the husband, consolingly; "you are going about to-day as if you were at a fair, looking



over the contents of the tables. What does not please you, you need not buy. The next visit is to our Historian, a worthy man, who is one of the good spirits of our University. His daughter also is an amiable young lady."

The servant opened the door and conducted them into the reception-room. There were some good landscapes on the wall; a pianoforte,—a pretty flower stand, with rare plants, well arranged and taken care of. The daughter entered hastily; she had a delicate face with beautiful dark eyes. A stately old gentleman with a distinguished air followed her. He looked something like a high official, only his lively way of speaking showed him to be a man of learning. Ilse was warmly and heartily welcomed. The old gentleman seated himself near her and began an easy conversation, and Ilse soon felt herself as comfortable as with an intimate acquaintance. She was also reminded of her home, for he asked:

"Are any of the remains of the old monastery at Rossau still preserved?"

Felix looked up with curiosity, and Ilse answered:

"Only the walls; the interior is rebuilt."

"It was one of the oldest ecclesiastical foundations of your region, and has stood many centuries, and undoubtedly exercised influence over a wide district. It is remarkable that the records of the monastery are almost all wanting, and all other accounts or notices, so far as I know, are very scanty. One may suppose that much still lies in concealment there."

Ilse observed how the countenance of her husband lighted up; but he replied, quietly:

"In the place itself my inquiries were in vain."

"That is possible," agreed the Historian. "Perhaps the documents have been taken to the seat of government, and lie there unused."

Thus passed one visit after another. Next came the Rector, a Professor of Medicine, an agreeable man of the world, who kept up an elegant establishment. His wife was a plump, active lady, with restless, inquiring eyes. Then came the Secretary of the theological Consistory, a tall, thin gentleman with a sweet smile; his wife, too, was over-proportioned in everything,—in nose, mouth, and hospitality. The last was the Mineralogist, a clever young man with a very pretty wife, who had only been married a few months. While the young women, seated on the sofa, were quickly becoming acquainted, Ilse was for the second time surprised by a question from the Professor:

"Your home is not without interest for my department. Is there not a cave in the neighborhood?"

Ilse colored and looked again at her husband.

"It is on my father's estate."

"Indeed! I am just now at work on a new discovery that has been made on your estate," exclaimed the Mineralogist.

He fetched a stone of remarkable radiated structure.

"This is a very rare mineral that has been discovered in the neighborhood of the cave: it was sent me by an apothecary of the province."

He told her the name of the mineral, and spoke of the stone of which the cave was formed, and the rock on which her father's house stood, just as if he had been there himself, and made Ilse describe the lines of the hills and the quarries of the neighborhood. He listened attentively to her clear answers, and thought the geological structure of the estate very remarkable.

Ilse was delighted and exclaimed:

"We imagined that no one in the world cared about us; but I see the learned gentlemen know more about our country than we ourselves do."

"We know, at least, how to find something more precious than fragments of rock there," replied the Professor courteously.

After their return home, Ilse entered her husband's room, who had already sat down to his work.

"Let me remain with you to-day, Felix; my head is confused with all the persons to whom you have taken me; I have seen so much within one day, and have had so much friendliness shown me by clever and distinguished men. The learned lady frightened me most; and, Felix, it is perhaps wrong in me to say so, for she is much cleverer and more refined, but I found a resemblance in her to a good old acquaintance."

"Frau Rollmaus," assented the Professor; "but this one is in reality very clever."

"Heaven grant," said Ilse, "that she may be equally true-hearted; but I feel terrified at her learning. I like the other ladies, but the husbands still better; there is something noble about almost all of them, they converse wonderfully well, they are unconstrained and seem to have real inward happiness and gladness of heart; and naturally so, for they hover over the earth like your gods of old, and, therefore, they may well be cheerful. And in spite of that there was the patched smoking jacket which the dear Professor Raschke wore—even moth and rust will not eat that! When I think that all these clever people have treated me with kindness and regard solely on my husband's account, I do not know how I can thank you sufficiently. Now that I have been thus received into this new society, I must ask that my entrance into it may be blessed."

The husband stretched out his hand and drew her toward him; she clasped his head with her hands and bent over him.

"What are you working at now?" she asked, softly.

"Nothing very important; merely a treatise that I have to prepare every year for the University."

He then told her something of the contents of the work.

"And when it is finished, what then?"



"Then I must be occupied in new tasks."

"And thus it goes on always from morning to evening, every year, till the eyes fail and the strength breaks," said Ilse, piteously. "I have a great favor to ask of you to-day; will you show me the books, Felix, which you have written—all of them?"

"All that I still possess," said the Professor, and he collected books and treatises here and there from every corner.

(To be continued.)

### RIDDLES.

My first, from the thief though your house it defends,  
Like a slave, or a cheat, you abuse or despise.  
My second, though brief, yet alas! comprehends  
All the good, all the great, all the learned, all the wise.  
Of my whole I have little or nothing to say,  
Except that it marks the departure of day.

Answer—CUR-FEW.

My first is the lot that is destined by fate  
For my second to meet in every State;  
My whole is by many philosophers reckoned  
To bring very often my first to my second.

Answer—WO-MAN.

'Twas whispered in heaven, 'twas muttered in hell;  
And echo caught faintly the sound as it fell.  
On the confines of earth 'twas permitted to rest;  
And the depth of the ocean its presence confessed.  
'Twill be found in the sphere when 'tis riven asunder,  
'Tis seen in the lightning and heard in the thunder.  
'Twas allotted to man from his earliest breath;  
It assists at his birth and attends to his death;  
Presides over his happiness, honor and health;  
Is the prop of his house and the end of his wealth.  
In the heaps of the miser 'tis hoarded with care;  
But 'tis sure to be lost in his prodigal heir.  
It begins every hope, every wish it must bound;  
It prays with the hermit, with monarchs is crowned.  
Without it the soldier, the seaman may roam;  
But woe to the wretch that expels it from home.  
In the whispers of conscience 'tis sure to be found;  
Nor 'e'en in the whirlwind of passion is drowned.  
'Twill soften the heart, but though deaf to the ear,  
'Twill make it acutely and constantly hear.  
But, in short, let it rest, like a beautiful flower;  
(Oh breathe on it softly) it dies in an hour.

Answer i—THE LETTER H.

The beginning of eternity, the end of time and space;  
The beginning of every end, and end of every place.

Answer i—THE LETTER E.

Formed long ago, yet made to-day,  
I'm most enjoyed while others sleep.  
What few would wish to give away,  
And fewer still would wish to keep.—Bed.

A word that's composed of three letters alone,  
'Tis backwards and forwards the same;  
Though it speaks not a word, makes its sentiments known,  
And to beauty lays principal claim.—Eye.

There is a well known word in the English language, the first two letters of which signify a male, the first three a female, the first four a great man, and the whole a great woman.—*Heroine.*

What word is that in the English language, of one syllable, which, by taking away the first two letters, becomes a word of two syllables?

Answer—Plague—ague.

A word of three syllables—My first addresses another, my second is myself, and my third speaks of my company. My whole is the harbinger of hot weather.—*Sir-i-us.*

Why is the letter T like an island? Because it is in the middle of water.  
Why is a dream like childhood? Because it is in-fancy.

## THE OPEN COURT,

PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRESIDENT.

DR. PAUL CARUS, EDITOR.

THE OPEN COURT is devoted to the work of conciliating Religion with Science. The founder and editor have found this conciliation in Monism—to present and defend which is the main object of THE OPEN COURT.

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### THE OPEN COURT,

(Nixon Building, 175 La Salle Street.)

P. O. DRAWER F.

CHICAGO, ILL.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 36. (VOL. II.—10.)

CHICAGO, MAY 3, 1888.

Two Dollars per Year.  
Single Copies, 10 cts.

## THE ETHICAL BASIS OF CHARITY.

BY W. ALEXANDER JOHNSON.

There are few terms in the English language having wider and more varying uses than the word CHARITY. Its meanings include the highest human sympathy and the weakest and most puerile sentimentality; self-sacrifice prompted by pure love, and money bestowed on the promptings of the assessor and tax-collector. State Charity, Municipal Charity, are common terms. Alms given heedlessly to beggars, and the saving grace by which we regard opponents without hating or thinking evil of them are called by the same wide name. Recent attempts have been made, and the present writer pleads guilty to some of them, to restore to charity its ancient and true meaning, namely, that fervent love of humanity which is the best motive of acts of helpfulness, and without which they are of little avail. But the tendency of the popular use of language is too strong for any such restoration of meaning. The word is permanently fixed in its present and common use. So understood it is a useful generic term to include all that is done for man by man, with the intent to alleviate suffering, and in this sense it is used in this essay.

That much popular charity is misleading and hurtful will be readily admitted. That the whole tendency of charity, even that of the most ideal type, is in direct and perpetual conflict with the largest law of biology is perhaps not quite so clear.

The law of "The Survival of the Fittest" is without doubt the law of progress in animal life. If this law had unhindered operation in its application to humanity, pauperism would speedily come to an end. Every pauper would have choice of three resources: he could work, steal or starve; he could no longer live by beggary. Those with force enough for either of the former methods of life would survive as workmen or robbers; the remainder would die, and pauperism would be extinct within the present generation.

Now whether or no it would be possible to dry up the stream of charity which has flowed in varying depth, breadth and intensity for so many thousand years; if such a consummation would be desirable, if it would be right, the ethical man would be bound to accept it and set his face against alms-giving as he now does against gambling, falsehood or irregular sexual relations, not because of this or the other individual instance

of their evil results, but because of their general injurious effects on the race.

We propose in this essay to endeavor to trace the ethical line in charity, and to ask those whose conduct is founded on abstract right, so far as is consistent with life among so much concrete wrong, to choose the better way in benevolence.

It is easy to frame a grave indictment against what is called charity as it is usually administered. All the qualities which go to make up a brave, robust manhood, such a manhood as we hope for in the perfect race that is to be, are discouraged and obstructed by alms-giving. Dependence follows hard on charity; where that goes labor's muscles relax, prudence forgets her forethought; thrift, that honest old Saxon virtue, retires in dismay before the extravagance and recklessness fostered by free soup, free lodgings, free coals, free bread.

Pauperism is one of the great social evils of our time. Without charity we might have other things much worse, but we should not have pauperism. The pauper, the social parasite, is the product of poverty, plus laziness, plus charity.

Every time a want is supplied by a man's own efforts, the faculty which is called into play becomes stronger, and the recurring want is smaller proportionately to the power of meeting it. Every time a want is met by the exertions of some one else, the power of meeting it by one's own effort is weakened, and the want becomes greater proportionately to the faculties it should call out. By repetition of the former course the man becomes stronger, more independent, a more perfect being; by constant repetition of the latter he becomes a pauper, a parasite, as incapable of providing for himself as the insect parasite which has established itself in the body of its victim and has become a mere sac, its sole powers being those of absorbing nutriment prepared by the digestive functions of another creature, and propagating its species.

It is needless to dilate on the habit of dependence; we at once recognize that it is the destruction of all who acquire it. We know that it is contagious and hereditary, so that if we would eradicate its taint from the children of the pauper, we must early remove them into better conditions.

With dependence comes improvidence. Forethought and thrift are, of all the virtues, two that most need



cultivation in our land to-day. But poverty that should incite to thrift, as soon as it sinks into pauperism produces extravagance and recklessness.

Dependence and unthrift are contagious. The industrious, prudent man who with hard work and close economy has saved a little hoard against a rainy day, sees trouble come to him and his reckless, improvident neighbor, and sees charity make his neighbor's path even smoother and easier than forethought and self-denial have made his own. How likely he will be to question the wisdom of his own course and what a temptation it will be when the troubled time is over to practice the recklessness he has seen so well rewarded!

The ill effects of charity do not cease with the recipients nor with those who are tempted by their example to become such, but extend to the general condition of the laboring classes. One of these ill effects is the tendency to the lowering of wages. This has not become marked as yet in this country as far as the wages of laboring men are concerned. To see how charity can affect the price of such labor we must look at England, where at one time, and even yet to some extent, the wages of farm laborers were paid partly in cash and produce from the farmer, and partly in poor-relief from the parish overseer; and where provision for old age was not dreamt of by the agricultural laboring class, since to end their days in the poorhouse was looked upon as the normal course of things.

But if our system of county aid, especially in the West, where the presence of an able-bodied man in the family is deemed sufficient reason for denying relief, has so far discouraged the tendency of charity to lower the wages of day laborers, that tendency is seen with startling clearness in the wages paid to women and girls.

The poor woman who asks charity, and gets it, to eke out her miserable pittance gained by the inferior kinds of sewing, is establishing ever more firmly that pittance as the normal price of woman's labor. Some of those who give charity in such cases know it is wrong, but think they are helpless to do otherwise in the presence of suffering which they feel they must relieve.

When the Chicago Home for Self-Supporting Women (which itself is not self-supporting) was organized a few months ago, a prominent employer of girl labor who was asked for a subscription said: "If you will board my girls for \$2 a week I will give you \$500," and he could well afford to do so, for he could at once have reduced the pay of some hundred girls by enough to make up the amount of his subscription in a few weeks.

So fatal and inexorable is the law of supply and demand. As soon as the supply equals or exceeds the demand, as it does now with almost every class of female labor, except skilled domestics, the price de-

creases to the cost of production, which in the case of labor is the bare cost of living. Reduce, by charity or otherwise, the cost of a decent living and you decrease the price at which it is possible for the too numerous applicants for situations to accept them.

Every institution for the aid of the poor which makes it possible to live at a cheaper rate or provides for them in old age or sickness, our hospitals, homes, asylums, etc., although immediately benefiting the few, are yet, to the extent to which they encourage dependence and discourage thrift and forethought, remotely hurtful to the many, and all of them do these to some extent.

These ulterior effects of charity are all the more appalling in that it is not alone nor chiefly the recipients who are the injured ones, but the class to which they belong and the race of which that class is a part.

There is another grave evil attending charity as commonly practiced, and that is its deteriorating, its demoralizing, effect on the giver of alms. Every rich man who does not succeed in closing his eyes and ears to the facts of misery and suffering around him, knows deep down in his conscience that he owes a debt of help to those who are suffering, that he is his brother's keeper in spite of himself. Those who reason know that this debt is a debt of justice, that with perfect equity in the concerns of mankind most suffering would be abated or abolished. The wealthy man, or still more the man possessed of a fair competence, too often stifles this thought by giving a modicum of charity to relieve the suffering that is forced upon his attention. Whereas he ought to give time, thought and money, even to the half of his income it may be, to the problem; he compromises on a few dollars or a few thousands bestowed with little care and doing usually little good and much harm. If he had not this ready resource of charity to avail himself of he would be driven to more thorough and more just action.

The need of the poor and the rich is not charity in the sense of alms, it is justice—justice carried to the utmost limit of our dealings and including in its scope our obligations not only to the individuals but to the race. This justice done there would still be room for a very noble kind of helpfulness, but it would hardly take the form of soup tickets or the pauper dole at the office of the county agent.

But admitting all these evils let us ask: "Does charity diminish the sum of human suffering?" It is questionable that it does. The amount of suffering directly caused by foolish and wicked alms-giving is enormous; still greater is that indirectly so caused. To the former belongs the suffering deliberately inflicted on little children that their misery may bring a plentiful harvest of alms, and the wretchedness endured by the common pauper in alternation with the seasons of



extravagance and luxury that result from a larger haul than usual from some soft-hearted, softer-headed *benevolent* but *maleficent* individual; to the latter belong the ulterior results of unthrift, the severance of family ties in the poorhouse, the lower standard of life, the squalor and misery of the poverty that comes of low wages and overwork.

But doubtful as the answer may be to the question as to whether the amount of pain is diminished, there is less doubt as to the answer to the further question: "Is the sum of human happiness increased or diminished by charity?"

Contrast the dreary, pleasureless existence, for example, of an old man in the poorhouse, with his life in a house of his own, surrounded by children and grandchildren, honored and respected by his neighbors. Contrast the self-respect, that most fruitful source of happiness, engendered by the possession of a little competence for old age, with the dull, hopeless discouragement of the pauper, even when he is not suffering from cold and hunger. The difference in the amount of happiness under these different conditions is so enormous that when we reflect that the condition of the dependent is largely the result of charity, we cannot hesitate as to the balance we should strike, notwithstanding the very real, although often selfish, pleasure to the giver which attends upon acts of charity.

The conclusion to which we are forced is, that while charity probably does on the whole diminish to some extent the amount of actual suffering, it also diminishes the sum of human happiness; that but for a consideration to which we must come later, a race without charity would be happier than our race with charity, as we practice it now.

This is a serious indictment, but it is as truthful and earnest as it is serious. It will be observed that we indict not the best charity, not charity as it might be, but charity as it is usually administered. And yet it is impossible to free the most ideal charity from some of the accusations here made against charity in general. With all the precautions possible against imposture and abuse, with the most earnest desire to aid only the most worthy, and them in the way that shall develop their powers of self-help, it is yet certain that charity interferes from sentimental consideration with the great law of progress in animal life and to such an extent is hindering the progress of the race.

The obvious reply is that progress in animal life is not the whole of progress; that the ability to work, to save and to crush down the weaker in stern competition is not the highest form of ability. That the humane and emotional side of our nature demands development as much as the physical and intellectual. The spectacle of women and children dying of starvation because their husband and father had been killed by accident, or

had drunk himself to death; of old men and women dying of hunger and cold by the roadside because they had spent all their earnings while able to work, and saved nothing for old age; of men and women dying of painful diseases, neglected and alone, because they had not saved during health enough to keep them and provide doctors and nurses during sickness, would be far more hurtful to the race in making us brutal and degraded, than any check to progress in the other direction that can be caused by the demoralization consequent on charity.

Sternness and repression of sentiment might be more beneficent and might soonest promote the ends of justice, were it not that the effects of the sight of unrelieved suffering would cause a deterioration of our higher qualities, more rapid and more hurtful than the deterioration of lower qualities caused by alms-giving.

That is to say that when we are doing our best in charity, our ethical justification is from the side of the consequences to the givers and to the race through them, and not from that of the recipients of their help.

Here then is the ethical basis we set out to find. Charity is justified by its emotional effects, and not by those which are physical and intellectual.

It is *not* justified by its immediate effects on its recipients, who are always endangered and frequently injured by it, nor by its secondary effects through the recipients on the race, which is injured to the extent to which charity creates pauperism and dependence, lowers wages, allows the substitution of alms for justice, favors the survival of the unfit, and so lowers the racial tone.

Charity *is* justified by its effects on the giver and thereby on the race, in that it helps to develop the emotional and humane side of our nature and saves us from the debasing and brutalizing effects of the sight and the knowledge of unrelieved suffering.

If this conclusion is accepted as true or as an approximation to the truth, there is a very obvious corollary to be drawn from it.

If we are charitable for our own benefit we have a heavy responsibility to so act in relieving suffering that we may reduce the evils caused by relief to their lowest possible degree, and increase the benefits in the same proportion. We must not use the suffering of our poorer brethren merely as the opportunity for the operation of a selfish virtue, whether we practice it as a means of gaining heaven or only of cultivating, refining and strengthening our emotional and moral nature for life on earth. We must never forget justice in charity, and our aim must be the permanent benefit of those we assist.

It is evident that relief given in reckless haste, is likely to be more hurtful than where care and caution are exercised. Alms given to compensate for the persistent injustice of some one else, will most likely be a



foolish and mischievous interference between cause and effect.

To give by proxy and through some impersonal society will hardly bring to the giver a due return of emotional culture for himself and the race. The more mechanical charity is made the less virtue there will be in it, and the more it will promote habitual dependence. Money given perfunctorily without personal sympathy, is more likely to be a mere sop to the Cerberus conscience than when it is given directly and under the impulse of actual knowledge of the sorrow it is alleviating. Surely what we do should be done in such a way as to develop and not dwarf the self-respect of the person assisted. Help to self-help must be of all kinds the truest and most just kind of charity.

It is not the intent of this paper to enter into details of charity work. It is enough if we have indicated the line where justice and charity may meet.

Anyone who has followed the argument thus far and accepts the conclusions as true or as near truth, will be likely to look for more light in reducing it to practice. He will find light in abundance, if he looks in the right direction. The science of charity, although far from perfect, has made great advances during the last decade. Thanks to the theory of the organization of charity, and the association of charities, we have in more than fifty cities in the land societies which are trying to practice charity upon scientific principles. There must be a best way for everything, and the societies referred to have as their aim to preach and practice the best way in charity. And some such considerations as those set forth in this essay are the cardinal principles upon which they are founded.

#### THE INTERNATIONAL COUNCIL OF WOMEN. \*

BY MONCURE D. CONWAY.

Although the press has fairly reported the proceedings of the eight days' Council of Women which has just closed its sessions at Washington, the significance of that congress, its picturesqueness, its impressiveness, have not been fully reported in any account I have seen. Although for more than a generation I have been an interested and tolerably close observer of what is called the Woman's Movement, I have for the first time become aware, while attending these sessions, of the immeasurable work for human benefit which women have achieved during that time. There are many besides myself who can recall the chorus of ridicule which greeted the earliest demand for political equality put forth by a few women forty years ago. It came from a little Methodist chapel at Seneca Falls, New York, where Lucretia Mott and Elizabeth Cady Stanton had summoned a "Woman's Rights Convention." It was early in July, and with the celebrations of Independence day ringing in their ears, these ladies adopted a new Declaration of

Independence. It was a clever travesty of the Jeffersonian document and began: "When in the course of human events it becomes necessary for one portion of the family of men to assume among the people of the earth a position different from that which they have hitherto occupied, but one to which the laws of nature and of nature's God entitle them, a decent respect for the opinions of mankind requires that they should declare the causes that impel them to such a course." Every accusation against George the Third was turned against the masculine absolutism. "He has compelled her to submit to laws in the formation of which she had no voice." "He has taken from her all right in property, even to the wages she earns." And so forth. Even in that little assembly of 1848 the claim to female suffrage was warmly opposed and carried by only a small majority. The burning question had been, for sixteen years, whether woman should be allowed to speak in public. The anti-slavery society had split on that issue. In 1840 the Garrisonian wing sent a delegation to a World's Anti-Slavery Convention in London, of whom eight were women—Lucretia Mott at their head. After a heated debate the female delegates were refused admission; whereupon the male delegates declined to act, and London lost its opportunity of listening to the eloquence of both Lucretia Mott and Wendell Phillips. Mrs. Stanton, then on her bridal tour, heard the debate. There her friendship with Lucretia Mott was formed, and on their return home they inaugurated a quiet propaganda, which resulted in the convention referred to and its "amusing" declaration. Nevertheless, their movement grew. It was for a time chiefly among Quakers, among whom it had always been the custom to recognize female equality in schools and religious meetings. Now, after two-score years, some of those "pioneers" live to see vast results from their Quaker meetings. Elizabeth Stanton, whose snowy hair surrounds her blonde face like a halo, has seen at the National Capital a vast harvest, sprung from the seed then sown. This Council was not, indeed, summoned in the immediate interest of female suffrage, but it is largely the result of the awakening of women to their public duties which then began. So much credit to that movement being awarded, it may be affirmed that the results attained are of far more importance than any that could have been anticipated from the particular aim of those peaceful revolutionists of 1848.

In the Grand Opera House, at Washington, gaily decorated in every part with flags of nations and banners of states, every seat occupied, a brilliant company gathered daily, morning and evening, to make and to hear reports of the work of women. There were delegates from other countries, France, Italy, Denmark, Finland, Canada; three accomplished ladies from England to report that there women have the municipal



franchise, and are included in the new local government bill of Lord Salisbury. But the main work reported was from America. More than thirty organizations were represented. The variety of these, their intricacy, extent, experiences, and diversified operations, are bewildering. Temperance and peace societies, missions—half religious, half charitable—training schools, clubs, suffrage societies, social purity society, hospitals, labor organizations, all had their impressive history and account of services to render. A small Baptist charitable mission in a remote part of New Hampshire sends a lady of eighty-two years, able to tell a thrilling story of helpful work. A lady from Boston tells of reading rooms for women, with a bureau of information which includes churches, theaters, offices, homes; with lawyers retained to render assistance gratis to any woman deprived of her wages or otherwise wronged. And here are accomplished ladies from New York to describe equally important services for well-to-do ladies rendered by "Sorosis," which discusses all questions except those bearing on religion, politics and woman's rights. Medical ladies related their struggles in trying to taste the still forbidden fruit of knowledge. A scientific lady, in collusion with a great authority on brains, of the "opposite" sex, refuted the prejudiced statements of Dr. Hammond concerning the inferiority of the female brain. Another, a law-partner with her husband in Iowa, spoke in a way which would have impressed the judicial committee before which some of the delegates have pleaded. Everywhere activity, competence, culture, earnestness. Emerson used to say that eloquence was cheap at anti-slavery meetings. The same is true of this woman's congress. I remember days passed in the Capitol listening to the eloquence of Webster, Clay, Corwin, Seward, Benjamin: since those times I have never heard speeches so impressive, eloquent, statesmanlike, as those in Albaugh's Opera House. They were free from rant, and, if sometimes touched with fanaticism, were always quiet and candid. One very handsome lady, in an effective address, said that if men should finally refuse to admit women to participation in their political work, nothing would be left women but to set up a government of their own. It struck me that this was what they are really doing. A hundred years ago the original thirteen states were in hot debate whether they would ratify the Constitution. Now here were delegates from states more important than geographical ones, moral and spiritual states organized for the varied service of humanity and to confront every form of evil. They have adopted a constitution, with Frances Willard for President and Susan Anthony for Secretary of State. A wealthy lady has donated to them a whole block in Washington to found here a great university of women, to train them for all kinds of service to their country. It was the dream of Washington, Jefferson, Madison

and other forefathers, that a great American university should be founded in the federal city. It looks as if the women were destined to fulfill it. If these earnest and eloquent women, who have hitherto had to beg men for permission to help them, to heal where men must wound, should in this friendlier era form their ideal state, send their weaponless soldiers to conquer wrongs, establish their merciful police to aid the progress of civilization, might they not elevate the national government even more than by votes? Might not their ideal moral government hover, dove-like, over the chaos of parties, over the "bosses" and caucuses, until these should be raised and refined into something more worthy to be called a Republic? That such might be the result is suggested by the fact that since women have been awakened to the condition of their country, legal and political, momentous changes have taken place. One after another barbarous "survival" has been shamed out of the masculine code. Women now have rights to property, to professional work, to colleges and degrees, secured by their appeals to reason and justice. Some wrongs remain; even great New York preserves the unjust law which deprives women of any control over the children they bear. But few of the Northern States preserve that relic of ancient wrong. It is certain that such influences as these must continue, and it becomes wise men to consider whether they shall not share in this new order and co-operate with it, until the time shall be ripe to end the long divorce between the higher energies of man and woman.

Pathos and humor have been quaintly mingled in the proceedings. Ramabai Pundita, who speaks English, told the sorrows of the zenana; and when she gave the Hindu doctrine of woman, and how she brought all evil into the world, it was only her simple face which repressed suspicion of a covert attack on doctrines nearer home. The little Pundita must have been puzzled by the presentation of an American Indian, a large much-beaded princess, whose jolly looks did not quite confirm Alice Fletcher's report, that Indian women had declared to her they were better off as Indians than under white law. President Willard, as we may now call her, began her speech on organization by holding up her hand and saying "Look at that!" We were thinking it was a neat hand when she said "There's not much in it. But look at that!" With this she held out the same hand doubled into a little fist, symbolizing the potency of organization. The fist was not formidable. Were it only large enough to grasp a sword perhaps there would now be no suffrage question. The little symbolical fist so held out raised a smile at first, but it may have reminded others besides myself that the demand of woman on man is the only one that does not threaten, which appeals to the sentiment of justice. Helen Gardiner, who has long been an invalid confined to her room in New York,



suddenly appeared here and made the vigorous speech, full of wit as well as science, vivisectioning Hammond's statement on the female brain. To a startled friend, who supposed her ill at home, she answered, "I've been resurrected for this occasion." This brilliant lady, by the way, made some allusion to "the fable of the Garden of Eden," from which a sensation might have been anticipated. But the remarkable discourses from members of the Council to which Washington listened on Easter Sunday, proved that independence of thought has extended to religion. Many of these ladies are called orthodox, but I am told it is rare to find one who believes in eternal punishment, and that many reject the narrative of the Fall. As authority loves authority, so does one kind of freedom love another. Easter Sunday afternoon was given up to a succession of religious utterances: one speaker was a Congregationalist, another a Methodist, another (Mrs. Hooker, Mrs. Stowe's sister) described herself as a Christian Spiritualist. Boston spoke through Ednah Cheney, a "Parkerite," and from the same region came an able lady named Elizabeth Stuart, who presides over a "Society of Humanity." I have rarely heard so much unconscious heresy uttered by persons supposed to be orthodox. There was a learned and ingenious address by Mrs. Gage, explaining that in the word "Jehovah" are combined the male and female principles of deity; also, that the Dove, the Holy Spirit, originally represented the divine feminine principle. For this she referred to the Aramaic Gospel, in which Jesus says "My Mother, the Holy Spirit." Thus there were many varieties and shades of theological opinion, but also a prevailing religious spirit. It may also be doubted if so many different, even antagonistic, views were ever before uttered so freely on the same platform without eliciting an inharmonious note, or even a word of reply from one to another. It would appear that in the presence of a great and absorbing practical cause and concern abstract opinion is relegated to a subordinate position. Are we to gain liberation from dogmatism through the reconciling and charitable influence of women—who are sometimes said to keep the churches going? Are they to remind a dogmatizing world of the old saying, "I desire not sacrifice, but charity"? Some traces of asceticism may be discoverable in this Council, lingering, perhaps, from its Quaker sponsors; some of the leaders insist on a world without wine or the Havana solace, and frown on fashionable costumes and dances; but the puritanical phase is already passing, and it will probably be found in the end here, as in England, that the movement towards larger female freedom and culture will include the evolution of a mode more beautiful and healthful.

Robert Browning once remarked to his preacher, after a sermon on nature, "You ought not to try and

describe nature, but the impression nature has made on you." I have remembered his advice in speaking of this great Council of Women. It were idle to attempt to describe it. I have but briefly and lamely spoken of the impression it made on me.

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M. D.

Part VI.

DIET—CONTINUED.

Every disorder of the human organism has its characteristic moral symptoms. There are diseases which an experienced physician can recognize by the restlessness, the despondency, the apathy or the excitement of the patient, as readily as by any physical indications, and a text-book on the principles of moral diagnosis would have to include an important chapter on the moral changes effected by the use of unnatural food. Abnormal appetites can assume the phases of true chronic diseases, and the study of their concomitant moral and mental phenomena opens out a most interesting field of inquiry.

The doctrine of evolution readily accounts for the fact that under normal conditions of the animal organism nutritious and wholesome substances are attractive, injurious ones repulsive. In the course of ages the continued operation of natural selection can be easily conceived to have favored the survival of individuals distinguished by a predilection for the most appropriate food of their species and to have eliminated those afflicted with a morbid hankering after poisons. To the palate of a normal human child, apples, honey and nuts—the natural food of our next animal relatives—are naturally attractive; opium, strychnine and alcohol naturally repulsive. But, by a less explicable by-law of our physical constitution, the persistent disregard of such warning instincts can turn that aversion into a passionate craving, and substances which at first seemed almost intolerably repulsive may become the objects of a morbid appetite, rising from a furtive hankering to a violent and progressive passion, which at last will overpower the resistance of every nobler instinct and completely pervert the moral principles of its victim. "No denial," says a British prelate, "will shake my experience-proved conviction that the power of prayer may transform the vilest propensities of the human heart." But is it a less significant, or less indisputable fact that the effect of a mere chemical change in the harmless beverage known as must, or sweet grape-juice, will turn an upright man into a dastard and a genius into an imbecile?

The incipient stage of alcoholism is characterized by an irritable impatience of restraint, making discipline irksome, and occasionally manifesting itself in a cynical

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disregard of politeness and decorum. Heavy drinkers are apt to delight in the wanton violation of formalities, and a certain aggressive coarseness of speech and manners is carried to as reckless extremes in the wine-drinking universities of the Rhenish border as in the beer-drinking villages of eastern Bavaria, and often neutralizes the high breeding of the most fastidious aristocrats.

"How do you account for the custom of ladies retiring before the end of a banquet?" Pückler Muscau asked his British host. "That's a pretty open secret; so we can make bawdry," was the blunt reply.

Under the direct influence of alcoholic stimulants the efficiency of the perceptive faculties is impaired, while the activity of the lower propensities is correspondingly increased. "Brain-workers," says Dr. Bouchardat, "should confine themselves to metaphysical tonics. Alcoholic drinks, at any rate, are unavailable for that purpose. Even after a single glass of champagne I have found that the slight mental exaltation is accompanied by a slight obfuscation. The mind soars, but it soars into clouds."

"*In vino veritas*," is a Latin proverb which would be considerably mistranslated by the assertion that alcoholic stimulants enhance the acumen of the mental faculties and thus facilitate the investigation of truth. Its real meaning is rather that wine loosens the tongue and thus leads to the revelation of private secrets. A realization of that risk probably suggested the adoption of the Macedonian table-rule which left a guest the alternative of a timely exit or complete intoxication.

Alcohol seems also to stimulate the amatory propensities, which, in their turn, react on the instinct of combativeness, the latter fact being curiously illustrated in the aggressive disposition of camels, stags, cats, and even quails and woodcocks, during the period of the pairing season. Hence those fits of pugnacity, following abruptly upon the maudlin endearments of an emotional toper. The traveler Kohl describes a scene in a Russian tavern, where all non-combatants sought safety in instant flight whenever a certain guest offered to kiss the bystanders, because they knew that a minute after he would try to brain them with a poker.

Long continued, the immoderate use of alcoholic beverages rarely fails to result in the loss of self-reliance and self-respect. Under the influence of alcoholism even men formerly distinguished by high-minded principles will become capable of gross iniquities, and often try to gratify their morbid passion by systematic deceit. Men who in their better years would have scorned to injure even an enemy by an intentional misrepresentation, have been known to resort to perjury and fraud, to appropriate a pittance needed for the support of their starving children or the hard-earned savings of a trusting friend. In the paroxysm of their alcohol-thirst baffled toppers have carried their point by stratagems beyond the

conception of any other passion, that of frenzied jealousy hardly excepted. Dr. Mussey, in an address before a medical society, mentioned the case of a tippler who, after squandering every cent he owned or could borrow, was at last consigned to an almshouse in a populous town of southern New England. "Within a few days he had devised various expedients to procure rum but failed. At length he hit upon one that proved successful. He went into the wood-shed of the establishment, placed one hand upon a block, and with an axe in the other, struck it off at a single blow. With the stump raised and streaming, he ran into the house, crying: 'Get some rum—get some rum! my hand is off!' In the confusion and bustle of the occasion somebody did bring a bowl of rum, into which he plunged his bleeding stump, then raising the bowl to his mouth, drank freely, and exultingly exclaimed: 'Now I am satisfied.'"

Opium induces a physical indolence strangely contrasted by a morbid activity of certain semi-intellectual faculties. "Wealthy mandarins," says the *North China Herald*, "arrange their funeral rites for years in advance, and meet death complacently, in the hope of having their virtues extolled by an orator under the influence of the choicest poppy-juice." De Quincey and Coleridge owed their weirdest conceits to the stimulus of the dreamy drug, and the "Arabian Nights" are said to record the visions of an opium trance. In the course of time, though, the enervation of the narcotized organism becomes more comprehensive, and the worn-out opium-eaters of eastern China are described as the most complete mental and physical wrecks seen outside of an idiot asylum. Opium and Buddhism co-operate in producing that absolute indifference to the approach of death which often amazes Caucasian visitors to the vice-centers of the far East. A batch of Chinese criminals will discuss commonplace topics with languid equanimity, while the court prepares to announce their doom; and during the recent Burmese campaign a British officer witnessed the execution of three native murderers who seemed to enjoy a pleasant siesta when they squatted down in the trenches to face the firing detachment. While the Provost Marshal examined the loaded muskets, one of the doomed men picked up a straw to clean out the tube of his pipe, and when two minutes after an ill-aimed ball of the first volley dashed out his teeth, his fellow-culprits were seized with a fit of uncontrollable laughter.

The rulers of the Bagdad caliphate used to stimulate the courage of their household troops with *hasheesh*, a narcotic still extensively used in western Asia and the Malay archipelago, where the votaries of the direful drug are apt to "run amuck"—rushing about with brandished daggers, till they are treated to an anodyne in the form of a knock-down blow. An extract of the same drug, is, however, used as a "love-philter," an additional



proof that pugnacity is a concomitant of the exotic passion. A moderate dose of hasheesh, like alcohol, promotes a convivial disposition, while opium-smokers love solitude and silence.

Tobacco is a moral sedative. The maxims of stoicism, or rather quietism, harmonize with the lethargic influence of the popular weed as naturally as the passionate temper of the South-Latin races harmonizes with the effect of their hot spices; and the equanimity of the tobacco-smoking Mussulman proceeds from a chemical, rather than philosophical, source of causation. Our carnivorous redskins seem to use tobacco as an antidote of their ferine instincts, and its lenitive influence may have promoted its adoption among the care-worn toilers of our feverish traffic-civilization. But those advantages are indisputably offset by the enervating effects of the nicotine habit. Inveterate smokers endure the vexations of daily life with a quietude which gradually passes into apathy and indolence; and though the moderate use of the seductive narcotic seems rather to promote a certain dreamy enjoyment of metaphysical studies, that predilection soon becomes a penchant for mystic reveries, and at last degenerates into a chronic aversion to mental efforts. The precocious use of tobacco is very apt to stunt the development of the more practical mental faculties. Boy-smokers are given to day-dreams and procrastination. In Spanish America the sight of a languid, cigarette-lethargized youngster is a very familiar phenomenon; and in a college-town of northern Belgium my tobacco-smoking schoolmates were characterized by a certain good-natured phlegm, coupled, however, with slowness of comprehension and often with latent selfishness.

The milder narcotics, tea and coffee, betray their influence only after years of habitual use, but the eventual symptoms of nervous disorder have their mental concomitants in a characteristic sensitiveness of temper, frequently degenerating into petulance, querulous aggressiveness, or its female modification, a certain lachrymose penchant for "playing the persecuted saint."

"Poison" and "stimulant" would seem to be interchangeable terms, for the drug-market hardly knows any virulent product of the mineral or vegetable creation which not somewhere has become the object of an unnatural appetite. The Ashantees fuddle with sorghum beer; the Mexicans with fermented aloe sap ("pulque"); the pastoral Tartars with fermented mare's milk; the aborigines of Honduras with hemlock sap; the natives of Kamtschatka with an infusion of the common fly-toadstool; the Druses with fox-glove tea. Arsenic, cinabar, and even acetate of copper, have their votaries; and the civilization of the western Caucasians has added absinthe, ergot and chloral.

All stimulant habits, however, are *progressive*, i. e. the besetting passion involves a hankering for a gradual

increase of the poison-dose, and all poison-slaves are liable to the temptation of making their tippie a Lethe of refuge from any unusual affliction. In China every public calamity is aggravated by an increased demand for opiates. The defeated Turks seek solace in overdoses of nicotine that have completed their national degeneration, and in western Europe famine and war have more than once been followed by veritable alcohol epidemics.

#### KARL THEODOR BAYRHOFER AND HIS SYSTEM OF "NATURALISTIC MONISM."

BY EDMUND MONTGOMERY.

Part IV.

Bayrhoffer seriously strives to gain a firm foundation for his naturalistic Monism. But, here, the notion that a unit of Being must necessarily consist of a "simple" essence—the same notion which for many centuries has played so confusing and ominous a part in our conception of soul or mind—leads our monistic philosopher to declare, that all monads must be in every respect equally constituted existents. Now, we can quite well understand why the mechanical world-conception is logically compelled to assume as original building-material equal units of mass; for its endeavor is to derive diversity in nature as brought about solely by difference of arrangement through difference of motion. But why should monads, which are conceived as irradiating centers of all manner of efficiency, be of necessity equally constituted, and this simply because they are assumed to be indiscernible and elemental?

The necessary consequence of such a conception of equal and indiscernible units of absolute Being is, that all difference in nature would have to be derived from nothing but the spatial grouping of the units, and the mere co-existence of their equal modes of elementary interaction. It is, however, incomprehensible how a number of equal and self-identical units should through intrinsic necessity ever enter into *different* modes of relation, and how they should come to form more and more heterogeneously synthesized compounds, that display most complex and unitary modes of interaction with one another.

This impossibility of conceiving, how simple, indiscernible and equal elementary units can ever form higher compounds, is an inherent weakness of Bayrhoffer's Monadology, as well as of the atomic world-conception. The atomistic notion amounts to the assumption, not that two and two equally conceived units constitute the higher compound "four," through mental or cerebral synthesis; but that two and two equal and real existents can constitute through mere spatial grouping a compound and yet unitary existent, essentially differing in nature from themselves; that for instance a certain number of atoms of hydrogen are through mere peculiar spatial grouping capable of forming oxygen,



and other numbers of the same atoms by the same means other material substances.\*

Bayrholder recognizes at least, that in order to derive heterogeneity in nature, there must already exist some specific difference in the factors of combination, and that such combination can be realized only in a synthetical medium of some sort. He says: "The heterogeneity of the materials, forces, motions and laws of the perceptible world, can find its explanation only in the fact that the identical monads are capable of entering into manifold *specific relations*; that consequently there exist divers systems of synthesis, and then again divers systems of such systems." As synthetical medium, in which complex effects are realized, he assumes a dynamical atmosphere or ether, constituted through the universal blending of all the interacting forces that emanate from the individual monads or dynamical centers.

But when urged positively to explain how differences really arise in his system of equal monads, Bayrholder is forced to base his qualitative or "specific relations" on a purely quantitative device. For monads being indiscernible, they can never lose their individuality or elemental identity in any kind of combination. Consequently, it can be only in the region of mutual contact, that, through the conception of a more or less profound interpenetration, any kind of heterogeneity can be made to arise. It is, however, as already stated, incomprehensible, how monads of an absolutely equal nature should ever, from intrinsic necessity, come to enter into unequal relations; to interpenetrate one another to an unequal extent, or to form in any way heterogeneous compounds.

Criticism, however, is not our present task. We wish only to point out how obscure the conception of absolute Being still remains, even to the most penetrating gaze. We are well aware that the problems here under consideration will be deemed abstruse and tedious by most readers; but whoever aspires to be a naturalistic Monist ought not to recoil from the trouble of learning on what philosophical and scientific basis his creed is actually resting.

Allowing Bayrholder to start with richly endowed real-ideal units, or psycho-physical elements of absolute Being, let us see how he proceeds:

Elemental being, though itself not perceivable by the senses, nor really figurable in imagination, carries, nevertheless, within it the ground of visibility. The universe, with all its material-spiritual phenomena, forms, laws, forces, can be understood and explained as the outcome of the interaction of those simple, indivisible, imperishable elements of Being, which have to be

conceived as centers of activity. They are as such the invisible foundation of the material universe. Being connected together in everlasting unity through ceaseless interaction, they compose the perceptible world. They are centralized spheres of life and motion, and by entering into interactive enchainment with one another they *create extension*, through their power of indiscernible self-preservation. Only as the product of such interacting living elements or monads can space-occupying matter be conceived to be the monistic reality, in which all natural phenomena rise and set. Take away the self-subsistent monadic substance, and the universe dwindles away into a system of mere relations without related subjects; becomes, in fact, a geometrical dream figured in empty space.

Real or objective space cannot be separated from real Being; for it is a form constituted by such Being. The separateness of its parts or its so-called extension, can be only the result of the resistance and repulsion of the elements of Being. And, that which unifies real space, making it one continuous expanse, is the result of the connection and attraction of these same monads or dynamic elements. Distance-producing self-preservation on the part of the interacting elements cannot be conceived without motion; for real space exists only as the product of the repulsive-attractive oscillation of monads and their compounds, and therefore with motion and time. Motion and time are consequently likewise products of the interaction of the elementary units of Being. Abstract empty space exists only in the imagination of thinking beings. Objective space is in all its parts an efficient reality, possessing definite limitations, and forcing these limitations on our individual space-perceptions. The entire sweep of our actual space-perception is certainly determined in every point by some real efficiency affecting our sensibility. There can be no empty places in any part of its extension, otherwise our perception would have no object and therefore be nothing.

The totality of monads constitutes the universe and is all in all. There exists nothing beyond; no absolute idea; no Deity; no immortal human soul. Only a totality of simple elements, subsisting together and keeping apart from one another by their own activity. No space, no time, no motion, are presupposed; absolutely nothing but the monads. These form through eternal and incessant interaction a definite whole. And the absolute ground or essence of the universe is, therefore, not the single monad, but the unity of monads. If this were not so, if the monad were a self-occluded existent, it would be devoid of quality, quantity and power of manifestation. It would be, in fact, the incognizable "real" of Herbart. The simple and ever-identical monad receives all its real attributes only in combination and relation. But relation without persistent entities between which it is to take place, would be a mere

\*It is the tendency of recent chemistry to conceive all material substances as multiple compounds of identical units. But the law of Avogadro, on which recent chemical theory is chiefly founded, presupposes, on the contrary, unequal specific weights of constituent atoms, which means that there are different kinds of atoms. And spectrum analysis demonstrates that even hydrogen must be a compound of at least four totally heterogeneous constituents.



form without essence. A world consisting of nothing but relations would be a phenomenon of nothing.

The universe is the absolute multiplicity of elemental individuals within the absolute self-conditioned unity of form. Perceptible matter, with all its mutable forms and forces, is the product of the ever-changing interaction of the monads. Following the tendency toward universal, but never-attainable equilibration, one state of existence issues from another ad infinitum, and the world can never come to a standstill, as predicted at present by scientists.

Now, it is inconceivable that an existent, while in contact with other existents, and during its affection through them, should not at the same time maintain its own identity. And this means that it must be a life, a force, something dynamical, exhibiting reactive efficiencies and differentiated self-identity. The monads standing thus in immediate relations to one another are suspended, as it were, in a connecting immaterial ether, through which they represent, stimulate, attract and repel one another. All perceptible matter is the consciously represented relative equilibrium of monads. All force, physical and mental, is the tension within monadic combinations. All motion the product of such tension when monads are striving from their present position to reach a new state of equilibrium.

Mental states, such as we are conscious of, are appearances, only within the highest forms of material beings. But since they inhere in the same matter, which in different combination is forming crystals and plants, the potentiality of spirit must be dwelling in all forms of nature, and consequently in the monad itself. Mind is the internal phenomenology of matter. Monads are reflecting units. They internally represent the activity exerted upon them by other monads. Such inner perception or illumination has always its origin in an affection of the monad from without by other monads. And this reciprocal perception among monads is the groundwork of all nature. It is the primitive power of unification or synthesis, and therewith primordial intelligence, and the germ of all the manifold forces of matter. For there is no force in nature that has not originated from the self-assertion of existents called forth from without. And matter, as the system of interacting monads, cannot be conceived as existing without reciprocal reaction or perception within its component units.

The monads are necessarily living beings, inasmuch as they are constituting a system of interdependent entelechies moving to and fro by impulsions given through sensibility. And this involves the internal representation of an external influence. Of course, this primordial intelligence of the elements of Being is not comparable to the consciousness of animals or men. Yet the mind or intelligence of the latter is only the highest form of such internal reflection.

The intrinsic vital and sensitive forces of the monads, causing the self-movement of alternate repulsion and attraction, are the fundamental energy of every natural phenomenon. In the progressive periods and regions of material evolution, the universe is passing from the external phenomenism of sensitive impulsions—which appear in our consciousness as the motion of unconscious nature—into an internal phenomenism of the same, by means of the building up of feeling and conscious systems of monads. In unconscious nature the primordial forces of the monads, which are perception and impulsion, continually and instantly dissolve into movements and constructions of perceptibly extended forms. In order that the consciousness of higher organisms may arise, there must take place a persistent reflection of the moving and constructing energy out of movement back into itself. The act of intelligence has to gain duration. And this occurs by part of the movement being steadily transformed into feeling. Just as the elements of matter through immediate and mediate penetration create from within an external center of gravitating equilibrium, so do the sensations and the impulsions become combined and centralized in the organism. Mediated through the coherent and materially perceptible system of the monads in which they inhere, they manifest themselves as concentrated feeling and volition in a concrete central part of the organic system. Consciousness is perception. It is an inner illumination of the stimulated center, caused by inhibition of reactive movement. Mind abstracted from nature is nothing but a chimera. The *ego* of an animal or man is a phenomenon of the united forces of a definite system of monads. Hence it is mortal, becoming annihilated through separation into elemental individuals.

In human beings there occurs a gradual transformation of natural necessity into purpose or idea. Purpose involves the representation of natural necessity in free consciousness. This allows the manifold forms of such natural necessity to appear in free consciousness as so many possible data of choice, enabling the subject to realize by force of his natural organism rather one form of reality than another. Hence purpose is a specific form of possible reality posited in human consciousness. And the subject of this consciousness seizes then upon the given data of the objective world, as means to realize his purposive idea. Necessity assumes thus the form of liberty.

Human beings, the further they advance in humanitarian progress, the more consistently do they feel urged to posit their entire life as an ideal, for the sake of whose realization they seek correspondingly to determine the objective world in all feasible directions. Man has no purpose outside himself. His whole being is rooted in the soil of natural necessity; and his purpose is simply the self-assertion of his human nature through



his own consciousness. Work, knowledge, morality, art, enjoyment, are all expressions of the self-assertion of the conscious subject. And the aim of humanitarian religion can be no other than to free the life of the human individual of all its inconsistencies, by means of the cumulative gain of work, knowledge, morality and art, attained by human society at large.

Bayrholder's ideal of human society is a social democracy established through the willing co-operation of all. He firmly believed in the future realization of the communistic ideal. Enthusiastically he exclaims: "Such an ideal is no chimera. It is a chimera only as man is a chimera to the animal, and Newton and Leibnitz chimeras to the savage. The time will surely come when humanity will look upon our present stage of civilization as only semi-animal."

We have now to take leave of our Wisconsin sage. We are conscious that it is but a faint and very imperfect idea we have been able here to convey of a life devoted to exalted meditation and to dutiful compliance with philosophical persuasions. With Bayrholder rational thinking had gained full mastery over the instinctive cravings of animal man. During his ardent search for true Reality, individual self-concern had well nigh lost itself in the contemplation of the great progressive upheaval of universal Being. World-wide philosophical conviction had become the living source of his hopes and fears. He felt, not as a self-occluded personal soul on a strange mission here below, but as a full-freighted and yet transitory impersonation of supreme natural achievement. And as he lived, so he died; in present joy and perfect confidence of the coming brotherhood of man, and the final triumph of the religion of humanity.

## NOTES.

### ECONOMIC CONFERENCES BETWEEN BUSINESS MEN AND WORKING MEN.

E. E. M. writes to *The Christian Register*: "The 'burning question' of to-day is undoubtedly the labor question; and it seems now as if almost every conversation, almost every meeting of thoughtful men and women for whatever purpose, brought out sooner or later various aspects of these problems for discussion.

"A good move toward their right solution has been made recently by Mr. Salter. He believes that the basis of all settlement of these questions must be the clear understanding by one party of just what the other wants and is trying to secure, and to this end he has planned and inaugurated a series of meetings which he calls 'Economic Conferences between Working Men and Business Men.'

"In these meetings the speakers are men representing the business interests of the city on the one hand, and the different phases of thought and organization among working men on the other. They afford to the latter the chance to hear employers and capitalists explain their own position and difficulties—subjects discussed usually at clubs and associations, where the listeners are comparatively of one opinion with the speaker. Here, equally, may the socialist, the trades-unionist, or the communist

expound his own views and plans, without fear of interruption, to the very men he wishes to meet. Miscellaneous discussion is excluded for obvious reasons; but, at the close of the evening's address, questions may be put freely, provided it is done in a proper manner.

"The first speaker of the course, George A. Schilling, represented one extreme of the Knights of Labor, which range, as he said, from the absolute individualist to the State socialist, and from the State socialist to the men and women who believe simply that in union there is strength. He is himself the extreme individualist; that is, he believes that no external authority should interfere with the doings of private individuals. He rejected the idea of the Knights of Labor that government should control railroads and other enterprises, but he thought that mutual consent and free competition would remove incentives to crime and other difficulties in the way of true progress. Individualist seems to be the new word for anarchist.

"The second lecture of the course was given by Lyman J. Gage, Vice-President of the First National Bank, on 'Banking and the Social System.' Premising that he stood there as a believer in self-government and in the largest practical liberty, he considered the law necessary to guard and protect that liberty. He thought the laws of supply and demand would eventually work out the problems, and that strikes would be settled by arbitration. He gave a history of national banking, presenting its advantages, after which questions were asked persistently."

In the third meeting Thomas J. Morgan spoke on "The Labor Question from the Standpoint of the Socialist." Most of the hearers must have been impressed that the socialistic ideal, if realized, would wipe out all individuality of man. Mr. Morgan described very vividly the evils of the present society, but the remedy offered by him would be worse than all these evils, for the socialistic society would be like a penitentiary in a grand style.

In the next number of *THE OPEN COURT* Wheelbarrow will have some remarks on the first conference.

### "RULES AND SUGGESTIONS FOR THE ORGANIZED CHARITIES OF LYNN, MASS.

*The Reporter*, an organ of Organized Charity, recommends the Rules and Suggestions adopted by the Associated Charities of Lynn, Mass., as the very best compend of its kind.

#### RULES.

1. As a visitor of this society you will not give money or its equivalent, except in case of absolute distress.
2. Approach a family with tact, delicacy and sympathy.
3. Study their condition, its cause, and by what means they can be raised to independence.
4. Never state the object of a visit as being to see if relief is wanted.
5. Do not disclose the information you gain to any person except the proper officers of the Conference.
6. Do not use your position for any purpose of proselytism.
7. You will not announce yourself as a visitor of any society, but as a friend or neighbor, hoping to aid them in productive work.
8. Do not take notes in the house you visit.
9. Be wise and cautious, but do not show suspicion.
10. Bring or send a report of your case to the Conference at least once a month. Attend the meetings of the Conference as often as possible, as you will find them helpful.

#### SUGGESTIONS.

As our object is the permanent improvement of the character and condition of the poor, we must strive to promote habits of thrift and industry. Insist on temperance.

The first aim of the visitor should be to establish friendly relations; this requires time and patience; we cannot expect to



win their confidence simply because we visit them, but must show an unselfish interest in them.

Encourage progress, however slow.

Be careful to avoid inquisitiveness.

Do not dictate, but suggest changes and improvements.

Be careful not to make the poor discontented; incite their ambition for what they may obtain, but do not make them strive for what they cannot hope to accomplish. Their lot is hard enough, and your aim is to cheer and strengthen.

Foster the pride of home and family; help to make the home cheerful by gifts that cannot pauperize, but rather tend to refine and elevate their tastes. If rooms are dark and unhealthy, help them to find better ones. If there are serious sanitary defects, report to the Board of Health.

Do not allow children to beg; it is demoralizing and tends to pauperism. See that young children attend school regularly and that older ones are employed.

Do not recommend aid in the case of vice or laziness. The relief of such, except in extreme need, is an injury to the family and a discouragement to their industrious and thrifty neighbors.

One great lack in the lives of the poor is bright, healthful entertainment. The crowded rooms and general discomfort of their surroundings often drives men to the saloon and young girls to unhealthy amusements. Visitors might arrange entertainments and talks, which would give a little brightness and cheer to the lives of the poor.

## OBITUARY.

Prof. William D. Gunning, lecturer and writer on scientific subjects, died at Greeley, Colorado, March 8th. He was born in Bloomington, Ohio, in 1830; graduated at Oberlin College, studied in New York City, and also with Prof. Agassiz; he held lectureships at Hillsdale College, Michigan, and in Pittsburgh, and was the author of a "Life History of Our Planet." He contributed to THE OPEN COURT the articles "Katzenjammer," in No. 1, p. 4; "Putting Off the Old Man, Adam," No. 3, p. 67; "Memory," No. 13, p. 361; "Tolstoi and Primitive Christianity," No. 15, p. 398; "The Old Man of the Sea," No. 19, p. 507, and at the time of his death had been engaged as the pastor of the Unitarian Society in Greeley.

Edward Schröter, a sturdy champion of free-thought, and one of the foremost promoters of liberal ideas among our German compatriots, died at his home in Sauk City, Wis., April 22d. He had almost attained the age of four-score. At the moment of death even his mind was engaged with the subject of his long life's labor, the establishment of free-religious congregations, and while the angel of death hovered over him he spoke of the constitution of the organization he had founded, and in which he had expressed his views.

George Ludwig Edward Schröter was born June 4th, 1811, at Lengede in Hildesheim. He visited the gymnasium of the latter place, and afterward the universities of Jena and Göttingen. In 1841 he had passed the necessary examinations in the department of theology. In 1845 he became associated with the German-Catholic movement, and his name was accordingly stricken from the list of eligible candidates to ecclesiastical preferment. He devoted his sole attention then to the establishment of the German-Catholic Congregation of Worms, but was deprived of the privilege of residence by a governmental decree. He emigrated to America in 1850. He immediately established a "Free Congregation" in the city of New York—a project which he was soon obliged to abandon by reason of his wife's illness. Schröter was called in 1853 to Sauk City. He was here obliged to pursue the calling of a husbandman as well as that of

a free-thought preacher, for the remuneration offered by his congregation was small indeed. The task was difficult, and only possible to a man of extraordinary vitality and strength of purpose. His success in this position has been confirmed by the independence he achieved and the universal recognition of those with whom he has been associated for nearly half a century. He acted as speaker in the Sauk City Congregation almost to the close of his life, while his later contributions and the support tendered to the "Freidenker" and the "Amerikanische Turnerzeitung" show that his interest in the liberal movement had not even then abated. He was one of the directors of the Radical Union, and represented his congregation as well as other German free-thought associations of this country as a delegate to the free-thought congress assembled at Brussels in 1880.

We give a translation of the main articles in the constitution of the Free Congregation (*Freie Gemeinde*) of Sauk county, in which are incorporated the views of his life's work:

(A.) This organization shall be styled the "Free Congregation" (*Freie Gemeinde*) of Sauk county, and the incorporation of the same shall be effected under this name.

(B.) This organization adopts the following leading principles as its fundamental rules of action; but it must affirm in advance that these leading principles are also supposed to be susceptible of continued development.

### GENERAL PRINCIPLES AND DEFINITIONS.

§3. The object of this organization is not the subjection of self to an external power, or to the authority of a person or book, which will, by such unconditional obedience, insure man happiness. It is the very opposite of that: it is the intellectual and moral freedom of man, his independence and self-dependence in thought, judgment, volition, resolve and action.

§4. The means to this end are consequently no supernatural and incomprehensible artifices (the sole traffic of a church), but the natural and comprehensible means whereby man is wont to influence the mind and character of his fellow-men, stimulating and ennobling them: discourse, song and interchange of opinion.

Nor do we preclude ritual forms so long as they remain unforced, reasonable and true to our sense of propriety.

For there are periods in the life of families, of nations and of mankind significant and serious enough to merit commemoration and which deserve to be celebrated in a becoming and edifying manner by those whom interest or sentiment have joined together. We could mention here the festival of gladness, celebrated by a family when increased by the advent of a new member, and the rites solemnized when a member passes away; the introduction of children into the congregation, after they have been instructed in the principles of the same; the ceremony of marriage; the celebration of the day of the birth or the day of the death of great men; the anniversaries of great historical events.

§5. We have no dogmas or decrees of belief, established for all time; we have principles and views of life only, and they are susceptible of continued emendation.

We seek to establish an independent view of life in order to adapt our mode of life independently to it.

For us there are no godless people in point of doctrine (theoretical atheists); there are godless people only in deed (practical atheists), that is, those who act as though no highest universal cosmic law prevailed to which they were to submit, and as though no moral cosmic order existed to which they were to conform.

We no more demand (decree) belief in God and immortality than we do unbelief.

§6. We recognize no order of priesthood as the exclusive bearer of the spirit of truth standing opposed to the order of laymen as mere empty vessels; as is the case with the Catholic and, to a great extent, with the Protestant church.

But we recognize preachers or teachers, who are elected by



free choice and installed by the congregation after their calling, fitness and moral character have been tested.

The persons appointed are by way of preference empowered to deliver discourses to the assembled members upon history, philosophy and morals, and to instruct the youth in the same subjects, without the opportunity being denied a member of the congregation to take the place of a preacher or teacher.

We lay especial emphasis upon educating the youth to intellectual and moral freedom, upon moulding their pliant minds and upon confirming the first lasting impressions their tender natures have received.

One of the first duties of the teacher in our congregation, therefore, is: to instruct the youth in history and morals, conscientiously and untriflingly; to stimulate them in acquiring an independent view of life in the family, in society, in the state, and among nations; to strengthen their power of moral judgment and feeling; to arouse in them respect and benevolence toward man; to instill in them the hate of servitude and the love of freedom; to practice them in self-control; to acquaint them with the ways and by-ways, the expedients and errors of life, to the end that they may accord with the development of the human race; and ever to keep before them the ideals of the noble men and noble women of Heathen, Hebrew and Christian history.

We expressly mention this essential part of juvenile instruction, for the reason that the public as well as the private schools neglect it. In the youth rest our hopes, the excellence and the happiness of our people.

On the same day, April 22, died Fritz Schütz, another German champion of free-thought, the editor of *Die Rundschau*, New Ulm. Schütz was born in Hassla, in 1834. After having been for some time the speaker of a free congregation at Apolda, he emigrated to America, where he worked in the same capacity in Philadelphia and Milwaukee. He was an able lecturer and a ready debater.

We note with regret the recent death of Mrs. Henry Sayrs, of this city. Few ladies of Chicago have done more to further the interests of the poor and needy, and few have left behind them a nobler record of self-renouncing labor. She was always a pioneer in movements designed to uplift and bless humanity. Thousands of the sick and wounded soldiers of the war of the rebellion have cause to remember her with gratitude.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

#### CHAPTER XIV.—Continued.

Ilse opened one work after another, and she found that she already knew the Latin titles of some of them by heart. The Professor became interested in this occupation, and was always finding more little treatises which he had forgotten. Ilse laid them all before her in a heap and began solemnly:

"Now, a great moment has come for me. I wish to learn from you the contents of each writing as far as you are able to explain it to your wife. When I was already secretly in love with you, the children found your name in the encyclopedia; we endeavored to read the strange titles of your books, and Frau Rollmaus made conjectures in her way as to the contents. Then I felt sorry that I could understand nothing of what you had done for mankind. Since that, I have always hoped the day would come when I could ask you what it was that you

knew better than others, and on account of which I should be proud of belonging to you. The hour is now come, for you have to-day introduced me to your friends as your wife, and I will be your wife also there where your treasure and your heart are, as far as I can."

"Dear Ilse," exclaimed the Professor, carried away by her frank dignity.

"But do not forget," continued Ilse, with emphasis, "that I understand very little, and pray have patience with me. I have arranged how I will have it done. Write down for me the titles as they are in the foreign language, and also in German, in a note-book that I have bought for the purpose, first of your earliest works, and then the last. Together with this, note down whether you value the work more or less, and what is its importance for mankind. Underneath every work I will set down what I understand from your explanation, that I may remember them well."

She produced a note-book; the Professor searched again for some more treatises, arranged them according to date, and wrote each title on one page of the book. Then he gave his wife some explanation of the contents of each work, and helped her to write her remarks in the note-book.

"Those in German I will endeavor to read myself," said Ilse.

Thus they both sat bending eagerly over the books, and the Professor's heart beat with pleasure at the earnestness with which his wife endeavored to understand his occupations. For it is the lot of the learned man that few feel a hearty sympathy in the trouble, struggles and merit of his productions. What he builds up with enduring strength henceforth becomes a corner-stone in the immeasurable house of learning on which all the races of the earth have been laboring for thousands of years. Hundreds of others make a foundation of it to advance their own work; thousands of new blocks are piled upon it, and there are not many to inquire who has chiseled the separate columns, and still more seldom does a stranger grasp the hand of the workman. The light works of the poet are long greeted by those in whom he has raised a cheerful smile or an exalted feeling. But the learned man seldom makes a valuable confidant or friend of his reader by his individual works. He does not paint enchanting pictures for the imagination; he does not flatter the yearning soul; he demands the utmost seriousness and the closest attention from his readers, the benefit of which redounds to himself in every criticism that is made. Even where he inspires respect he remains a stranger.

And yet he is not a mere stonemason who cuts formless blocks according to prescribed measures; he also works independently and contributes his own life-blood, sometimes suffering great depression, sometimes full of joy and happiness. The fruits which he has grown for his times

\*Translation copyrighted.



have developed from the deepest roots of his life. Therefore the honest mind that enters heartily into the labor of the learned, and not only inquires for the ultimate result of learning, but takes an interest in the inward struggle of the workman, is to him a valuable treasure, a rare happiness.—Felix now looked with emotion at his wife, who was striving to occupy this position, and soft emotions pervaded the heart of the strong-minded man while he explained to her the subjects of his labors, —while he told her about the Roman *tribus* and the duties of the senate.

When all were noted down, Ilse laid her hands on the books and exclaimed:

"Here I have all. What a small space they occupy, yet they employed many laborious days and nights, and the best portion of your noble life. This has often given you flushed cheeks as you have to-day. For this you have studied till your poor brain has been on fire, and for this you have always sat in a confined room. I have hitherto looked upon the books with indifference, now for the first time I perceive what a book is, a quiet endless labor."

"That is not to be said of all," replied the Professor; "but the superior ones are more even than a labor."

He gazed lovingly on the walls along which the high book-shelves reached up to the very ceiling, so that the room looked as if papered with the backs of books.

"The great number of them quite frightens me," said Ilse, helping him to make room for his own books in a dark corner, which was now cleared for them as their resting place. "They look so calm and composed, and yet many of them may have been written with such impassioned feeling, and have excited their readers, too."

"Yes," said her husband, "they are the great treasure-wards of the human race. They preserve all that is most valuable of what has ever been thought or discovered from one century to another, and they proclaim what was once existing upon the earth. Here is what was produced full a thousand years before our era, and close beside them those that have come into the world only a few weeks ago."

"Yet, from the coats that they wear, one looks almost like the other," said Ilse. "I should have difficulty in distinguishing them."

The Professor explained their arrangement and led her from one book-shelf to another, pointing out those which were his special favorites.

"And you use them all?"

"Yes, and many more at times. These that you see here are only an infinitely small portion of the books that have been printed; for since the invention of books, almost all that we know and call learning is to be found in them. But that is not all," he continued; "few know that a book is something more than simply a product of the creative mind, which its author sends forth as

a cabinet-maker does a chair that has been ordered. There remains attached, undoubtedly, to every human work something of the soul of the man who has produced it. But a book truly contains under its cover the real soul of the man. The real value of a man to others—the best portion of his life—remains in this form for the next generation, perhaps to the most distant future. Moreover, not only those who write a good book, but those whose lives and actions are portrayed in it, continue in fact living among us. We converse with them as with friends and opponents; we admire and contend with, love or hate them not less than if they dwelt bodily among us. The human soul that is enclosed in such a cover becomes imperishable on earth, and, therefore, we may say that the soul-life of the individual becomes enduring in books, and only the soul which is encased in a book has certain duration on earth."

"But error persists also," said Ilse, "and so do liars and impure spirits when they are put in books."

"They undoubtedly do, but are refuted by better souls. Very different, certainly, is the value and import of these imperishable records. Few maintain their beauty and importance for all times; many are only valuable at a later period, because we ascertain from them the character and life of men in their days, while others are quite useless and ephemeral. But all books that have ever been written, from the earliest to the latest, have a mysterious connection. For, observe, no one who has written a book has of himself become what he is; every one stands on the shoulders of his predecessor; all that was produced before his time has helped to form his life and soul. Again, what he has produced has in some sort formed other men, and thus his soul has passed to later times. In this way the contents of all books form one great soul-empire on earth, and all who now write, live and nourish themselves on the souls of the past generations. From this point of view the soul of mankind is an immeasurable unity, which comprises every one who once lived and worked, as well as those who breathe and produce new works at present. The soul, which past generations felt as their own, has been and is daily transmigrating into others. What is written to-day may to-morrow become the possession of thousands of strangers. Those who have long ago ceased to exist in the body continue to live in new forms here on earth, and daily revive in thousands of others."

"Stop," cried Ilse, entreatingly, "I am bewildered."

"I tell you this now, because I too feel myself a modest worker in this earthly soul-empire. This feeling gives me a pleasure in life which is indestructible, and it also gives me both freedom and modesty. For whoever works with this feeling, whether his powers be great or small, does so not for his own honor, but for all. He does not live for himself but for all, as all who have existed continue to live for him."



He spoke earnestly, sitting surrounded by his books, with the setting sun casting its friendly rays on his head and on the home of his spirit—the book-shelves. And Ilse, leaning on his shoulder, said humbly: “I am yours. Teach me, form me, and make me understand what you understand.”

## CHAPTER XI.

## AMONG THE LEARNED.

Ilse popped her head into her husband's study: “May I interrupt you?”

“Come in.”

“Felix, what is the difference between Fauns and Satyrs? Here I read that Satyrs have goats' feet, but that Fauns have men's feet and a small tail.”

“Who says that?” asked Felix, indignantly.

“Why, here it is in print,” replied Ilse. As she spoke she showed an open book to her husband.

“But it is not true,” answered the Professor, as he explained the matter to her. “The Greeks had Satyrs, the Romans Fauns; but the gentleman with the ram's feet is called Pan. But how did this Bacchanalian train come into your household?”

“You said yesterday that the Councillor of the Consistory had a Faun's face. Then arose the question what is a Faun's face, and what is a Faun? Laura remembered perfectly that she had learnt at school that he was a fabulous creature of the Romans, and she brought the book in which these creatures are portrayed. What a wild set they are! Why have they pointed ears like the deer, and what have you to say, if even in such things one cannot rely on your books?”

“Come here,” said Felix, “and I will soon introduce you to the whole company.” He fetched a book of engravings and showed her the figures of the whole train of Bacchus. For a time the instruction went on well; but then Ilse objected: “They all have very few clothes on.”

“There is more room for art in the body than in the dress,” said her husband.

But Ilse became uneasy at last; she closed the book and exclaimed, coloring: “I must go; my help is needed in the kitchen to-day, as a new pudding has to be made. That is my high school, and the servant is still a novice.” She hastened out. “Tell your Satyrs and Fauns that I had a better opinion of them; they are very indecent,” she exclaimed, once more popping her head through the door.

“So they are,” exclaimed Felix, “and they do not wish to be otherwise.”

At dinner, when Felix had sufficiently admired the pudding, Ilse, laying down her spoon, said seriously: “Do not show me such pictures again. I would gladly like your heathens, but I cannot if they are like that.”

“They are not all so bad,” said her husband, con-

solingly; “if you like, we will this evening pay a visit to some of the notables of antiquity.”

With this day Ilse began a new period of learning. Soon a fixed hour was arranged for her husband's explanations—the most valuable part of the day to Ilse. First the Professor gave her a short description of the great civilized nations of antiquity and the middle ages, and wrote down a few names and dates for her that she learnt by heart. He pointed out to her that the whole life of man was, in fact, nothing but an unceasing receiving, producing and giving forth of the materials, pictures and impressions presented by the surrounding world,—and that the whole intellectual development of man is, in fact, nothing but an earnest and reverent search after truth;—and that the whole of political history is, in fact, nothing but the gradual subduing of egotism (which produces disunion between men and nations) by the creation of new wants, the increase of a feeling of duty and the growth of love and respect for all mankind.

After this preparation the Professor began to read the *Odyssey* aloud to her, adding short explanations. Never had poetry so grand and pure an influence upon her soul; the lively legendary style of the first part and the powerful development of the second quite captivated her heart. The characters became almost like living forms to her; she wandered, suffered and triumphed with them—raised into a new world of more beautiful images and higher feelings. Then when the conclusion came and the much-tried sufferer sat opposite to his wife, the scene of recognition made a deep impression on the heart of the young wife. She sat near her beloved husband, her cheeks suffused with blushes, her eyes moist with tears and modestly cast down; and when he ended she clasped her white arms round her beloved and sank on his breast, lost in transport and emotion. Her soul woke up, as it were, from long repose and glowed with deep feeling. The immortal beauties of this poem cast a radiance over every hour of the day, over her language, nay, over her bearing. She took pleasure in trying to read aloud herself, and the Professor listened with heartfelt pleasure as the majestic verses rolled melodiously from her lips, and as she unconsciously imitated his mode of speech and the modulations of his voice. When in the morning he went to his lecture and she helped him to put on his brown duffel overcoat he was greeted with the pleasant rhythm of this hexameter:

“Purple and rough was the coat of the cunning and noble Ulysses.”

And when she sat opposite to him during her hour of instruction and he came to a pause, these words of admiration broke from her lips:

“Thus thou cleverly thinkest, and wisely speakest thou always.”

And when she wished to praise herself, she murmured to the singing of the boiling kettle:

“Even in me lives wit, to discover the good from the evil,  
Formerly though I was but a child.”



Even the estate of her dear father now seemed to her illuminated with the golden splendor of the Hellenic sun.

"I do not understand," said her father one evening to Clara, "how it is possible that Ilse should so quickly have forgotten our farming customs. In her letters she speaks of the time when the cattle shall again wander in the wide plains; she means, I suppose, the fallow fields; but we feed our cattle in the stalls."

(To be continued.)

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### LANGUAGE.

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This essay of the American scholar should be compared with the essays by Max Müller. The study of language is of interest to the lawyer as well as the clergyman, the scientist as well as the teacher.

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FELIX L. OSWALD, M.D.....In Nos. 27, 29, 31, 33, 34.

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PUBLISHED EVERY THURSDAY BY

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 37. (VOL. II.—II.)

CHICAGO, MAY 10, 1888.

Two Dollars per Year.  
Single Copies, 10 cts.

## PROFESSOR MAX MÜLLER AND THE SCIENCE OF THOUGHT.

BY JOHN CHAPPELLSMITH.

The great Thinker is the secretary of his age; if his mind glances beyond his contemporaries, he will not be listened to; if it outruns the majority, he will have little influence.

GEORGE H. LEWES.

It was greatly gratifying to see the doors of THE OPEN COURT thrown open and welcome given to three lectures on the crowning work of Max Müller's life, "The Science of Thought": viz., On the Identity of Thought and Language, and on the Simplicity of both. The province of *The Index*, I inferred, when established at Toledo, in 1869, was to discuss the problems of the nature of the World, of Life, and Mind, including the greater problem, the "Mystery of Existence." When *The Index* was removed to Boston and it became the special organ of "The Free-Religious Association," I felt assured that my inference was correct. But it is strange to say that I never saw the name of Max Müller even noticed in *The Index*, let alone his continued efforts to elucidate the great biological questions, as they are now carried on in England and America, from either a materialistic or an idealistic point of view.

Max Müller has been showing for more than twenty years that the same old problems disquieted not only all philosophers, but all to whom truth was a matter of real concern. The problems are still unsolved as to certainty in the evidences of the senses, of reason, or of faith, in regard to the beginning or the end of our existence; and as to whether the Infinite is a shadow of a dream, or the substance of all we know. The same old problems, he says, had exercised the sages of India, the thinkers of Greece, the students of Rome, the dreamers of Alexandria, the divines and scholars of the Middle Ages, the Realists and Nominalists, and again the followers of Locke and Hume in their conflict with the followers of Descartes and Leibnitz. Never, perhaps, did the pendulum of scientific thought swing so violently from pure spiritualism to pure materialism, as in the middle of the last century, and of this, in the struggle for primacy between mind and matter, when materialism seemed to have gained the upper hand over idealism (*Science of Thought*, p. 30).

These statements will be regarded as exhibiting a reactionary spirit; they do so, when considered as opposing the gospel of the day, that man is the offspring of a brute, and began as a savage. This consideration brings that gospel into direct conflict with the fact, that language is thought, and thought is language; and has led to the conclusion, that the real evolution of the human mind must be studied in the history of language. Some writers, Max Müller says, have drawn largely on their imagination in composing their picture of the human mind; on what it was in the beginning; and how it became what it is now. Others have looked among so-called modern savages for information on the primitive stage of human thought. Some light has been thrown on this difficult subject, but it amounts to only a few more or less plausible guesses, as to how man came to his senses, his reason, and language, in fact, to how man came to be man. The historical development of the human mind can be studied only in the archives of language; these reach in an uninterrupted line from the latest thought to the first word ever uttered by our ancestors; and it is in what the human mind has left, that Max Müller tries to decipher its true autobiography (p. 83). Besides the problem of the evolution of mind, there is that of the evolution of Nature. As the evolution of nature can only be studied in the products, which nature has left us, so the evolution of mind can only be studied in those products, which mind has left us. The earliest products of mind were embodied in language; therefore, in language the problem of the origin and growth of mind must be studied. The problem of the origin and growth of language and reason must be studied in the same spirit, that the evolutionists treat the origin of nature. Now, if language and reason are identical, if there is not a doubt, that language had an historical beginning and represents the work of man carried on through many thousands of years, we cannot, says Max Müller, avoid the conclusion that, before those thousands of years, there was a time when man was without language, and, therefore, without reason. There is no escape from it. Other philosophers, who reason fearlessly, have arrived at the same conclusion (p. 85).

Among these philosophers, Spencer, Huxley and Haeckel may be placed, but not Darwin. As regards



Darwin, Max Müller says he must explain why everything that he has written, has been to support the theory of evolution; he has had to protest against Darwin's interpretation of that theory. It is utterly unintelligible, how a student of the Science of Language can be other than an evolutionist; he has to deal with evolution from beginning to end (page 89). The theory of evolution which Max Müller holds, and seems more confirmed by every discovery made in the growth of nature, and in the growth of the human mind as represented in language, is this, that evolution in both starts from distinct beginnings, and leads to distinct ends. Therefore, in the growth of language he denies what Darwin denies in the growth of nature (differing thereby from most Darwinians), viz., in one uniform beginning of all organic beings from one primordial cell, and all words from one primordial root. This is not Darwin's doctrine, however of much importance in the present state of philosophic thought. But the first question must be, not of the possible transition from non-sentient to conscious and sentient matter, but with the development of a sentient into a rational being, or as others would say from an animal into a man. The whole theory of evolution ought to rest on the distinction between what is possible and what is not, or rather between what is not rational and never can be rational. Evolution means the turning of occult qualities into manifest ones, or possible qualities into real ones. Man may at one time have been a mute animal, but it does not follow, that every mute animal may in time become a man, nor that language, in which the evolution of mind is to be studied, presupposes no more than what exists at present in every ape (page 89). Max Müller says, he follows Darwin with all his heart in showing how many varieties, without necessity, have been raised to the rank of species or genera. He admires Darwin's great sagacity in observing the influence which artificial and natural selection have in producing variation and making it more or less permanent. Should he, or some of his followers, maintain that the actual genera which we see in nature, have, from the days before or immediately after the creation, proceeded from one primordial moner? Müller says he can conceive such a theory provided a power of differentiation is admitted in the germ itself. But what Max Müller most admires is what is called Darwin's inconsistency, but which proves his scientific consciousness, his admitting not one, but a number of progenitors for the great genera of nature. As he is no longer among us, it should be shown what he taught, and what is taught by his followers, who out-Darwin him. Darwin was opposed to monogeny; he held that there was not in the beginning one primeval cell, which in time developed into every living thing, "but four or five progeni-

tors for the animal, and an equal or lesser number for the vegetable kingdom." A celebrated divine told Darwin, that the conception of the Deity creating a few forms capable of self-development into other needful forms, was as noble a conception as that of creating fresh forms to fill the void caused by the action of His laws. Darwin says, he sees no "good reason why his views should shock the religious feelings of any one."

Max Müller, at page 105, is inclined to go much further than Darwin. The question is not, whether one conception of the Deity is more noble than another (how can even a celebrated divine decide that?) but simply, whether in our conception of creation or development any extra-natural influence must be admitted. He says if he interprets Darwin's words rightly, he seems to be one of those who admit, nay, postulate some extra-natural cause, however, he may shrink from asserting anything regarding the mode of operation. Darwin's books should be read carefully from edition to edition. Look at the last words in the "Origin of Species." "There is a grand era," he says, "in this view of life with its several powers, having been originally breathed by the Creator into a few forms or into one." The words "*by the Creator*" were absent in the first edition; why, says Max Müller, were they added in the later editions? Doubtless for a purpose. Why do those who express the highest admiration for Darwin, ignore this and similar passages. For instance, Haeckel, the most fiery apostle of Darwin in Germany, calls himself a Darwinian, and yet maintains that in the present state of physiological language, the idea of a Creator, a Master, a Life-giver, has become entirely unscientific; one primordial form is sufficient, a Moner produced by self-generation. Max Müller says, page 107, he is not frightened by Haeckel's views, he has seen such defended from the very first beginning of philosophic thought by arguments perhaps more powerful than any adduced by recent philosophers. He admits that the idea of a creator causes far more difficulties than it removes. But what he cares for, is historical accuracy. He cannot bear to see the misleading statements according to which two systems of thought, so diametrically opposed on the most momentous questions as Darwin's and Haeckel's, are allowed to pass under the name of Darwinism, as for instance in the Index of August 12, 1886 (Science of Thought, page 107).

The theory of the development of all living beings from inorganic matter is Darwinian rather than Darwin's. A discovery as to how inorganic matter could be changed into organic, would lead to an understanding of the origin of life; it would form the strongest foundation of the theory of development, and Darwin



would have readily welcomed it, could he have conceived it possible in the present state of knowledge. But he could not conceive such possibility. So, while Darwin abstained, those who out-Darwin Darwin (as Prof. Romanes says), showed far greater scientific courage. There is a break in the principle of continuity evidenced in the chasm between the living and not-living. Spencer remarks in relation to this difficulty, that scientific discovery is daily narrowing the chasm. A few years ago it was held that chemical compounds similar to organic could not be artificially formed. Chemists have discovered the art of raising up complex compounds from simpler, and believe that they will eventually produce more complex which will give a clue to the lowest forms of life. Huxley says the feat has not been accomplished, but Chemists will not cease trying. Max Müller says this is very able pleading, but it is detrimental to the discovery of truth. How can it be said that the chasm between inorganic and organic bodies is narrowed, because certain substances have lately been built up in the laboratory which are not organic substances themselves, but simply secretions of organic bodies? The question was not whether some of the products turned out of the laboratory of a living body can be imitated, but whether such a living organic body can be built up out of dead organic matter. Max Müller says he should be satisfied with much less. If he gives Spencer carbonic acid and water, will he make starch out of them? (p. 109.)

It is a violation of the fundamental laws of scientific reasoning to offer such an hypothesis as the real explanation of the problem of life. Darwin kept clear from such vain imaginings, from the primitive slime, from self-generation, from the one primordial cell and all the rest. At present, he said, we cannot bridge over certain chasms, which divide the inorganic from the organic world, and certain great divisions in the organic world from each other. Darwin admitted different beginnings of organic beings, and required the ancestors of the four great genera of organic beings. He did not attempt to explain the beginnings, but used language most widely intelligible, by saying that "life was breathed into these few forms by the Creator." The ancestors granted, all the rest becomes intelligible. Individuals to be individuals must vary, and that variation in time may lead to what are called varieties, what the ancients would have called, more correctly *εἶδη* or species. But whatever the bundles of what *is seen* are named, they are bundles of man's own making. The origin of species is in the mind of man. A few more words about species or what is seen. Max Müller says, genus and species are both of our own making, they are concepts. "If Darwin had studied the history of the word species \* \* \* \*

he would have called the book not the Origin, but the Abolition of Species," for to Max Müller's mind the results of all Darwin's observations and reasonings show "that the word species is dead." He says there are individuals, more or less permanent varieties, and there are genera; "but species in the old sense of the word, there are none." (Science of Thought, p. 375.) Max Müller says, Darwin has never told us what species means. Read the book from beginning to end; there is not a real definition of species in it.

Jesus, in the flesh, told his disciples that he "had more to tell them, but they could not bear it now." Max Müller has more to tell the readers, but I fear they cannot bear it now, perhaps will not. He says with all his gratitude to Darwin for putting an end to the terrorism of those physiologists who raised every variety into a species, and insisted on an independent origin for every variety of living beings, he thinks Darwin "allowed himself to be carried away, when he *denied an independent origin to man.*" Why Darwin, in addition to his four progenitors, imagined that there could not be a fifth for man, Max Müller cannot understand. If there is something in man, which has not been as fact shows, inherited from a monkey or any other animal, something of which even the most rudimentary germs are absent in the whole animal genus, and which has imparted to man a character entirely different from all living beings, namely, language, why represent him as the descendant of an unknown, but certainly speechless, ape (p. 158).

#### THE ANIMAL SOUL AND THE HUMAN SOUL.

BY CARUS STERNE.

Translated for THE OPEN COURT by V. G. J.

Ever since a philosophic view of nature has existed, there have been disputes regarding the relation of the animal intelligence to that of man. It was evidently in the interest of all those, who believed man to be of divine origin, who accorded him an unquestioned dominion over the brute with the right of immortality and—last, but not least—the prerogative of sinfulness—it was evidently in their interest to deny that the animal possessed either reason or soul. They declared both to be the exclusive right of man, and they thus erected an insurmountable barrier between man and brute. Aristotle, though believing animals to be possessed of sensation, memory and passion, nevertheless, denied them the faculty of reason, and it was this latter fact, which made it possible for Thomas Aquinas to incorporate Aristotle's philosophy into the systems of Orthodox Christianity. Orthodox Christianity, therefore, could concede the animal a material soul perishing with the body, while it reserved for man the imperishable, immortal soul.

The enthusiastic recognition which the philosoph-



ical system of Descartes met with among orthodox circles is explained in the same way; for Descartes first ventured to declare the animal a perfect machine. Descartes, also, was one of the first to assert positively that the brain is the organ of thought in man. He had devoted especial attention to the unconscious and involuntary movements which follow in the brute body in answer to some external irritation, and which he termed reflex motions; and he was convinced that everything in the animal body occurred according to mechanical laws. We can observe similar involuntary movements in ourselves. Nor need we resort to abnormal cases, in which illness or an operation, as in Goltz's frog-experiment, has severed the connexion between the brain and the spinal column,—when the creature under treatment, though completely bereft of sensation in the feet, nevertheless, when tickled under the soles, unconsciously moves them; for the human body in its normal state of health affords us innumerable examples.

"If our best friend," says Descartes, "who, we are quite certain, will never strike us in the eye with his fist, acts as if he meant to do so, we cannot, despite our greatest efforts, keep our eyes open at the moment of the blow; the mechanism of the body is thus even stronger than the will." We know that we are unable to suppress the desire to cough, sneeze, etc., caused by irritation of the mucous membranes; we can scarcely betimes resist the necessity, coming from within, to laugh or to scream.

Entirely beyond the control of our consciousness and will are the movements of the breath, the beating of the heart, the organs of digestion, etc., which act with mechanical regularity—systems, which appear to be mutually interdependent, but which are entirely independent of that which we call thought, consciousness, soul. The originator of the newer philosophy, with the logic peculiar to his system, then concludes: animals are nothing more than well-built machines.

The most orthodox people of the time accepted this assumption of the master, without considering the doubtful conclusions which must follow. The great Leibnitz was one of his most faithful and concurring supporters, and the more than orthodox Jesuit monk, Malebranche, was his enthusiastic disciple. It cannot be denied that in the animal body all the functions fit and co-operate with the precision of a machine, but they forgot that the same is the case in man, and if proper reasoning were employed, the same conclusion must be applied to him. To reach this conclusion, it was evidently necessary to possess a more perfect knowledge of the human body, in addition to a little boldness and freedom from prejudice.

The first who unhesitatingly did so, and publicly ex-

pressed his opinion upon the subject, was the French physician and philosopher La Mettrie, whom Frederic the Great invited to his court, and so greatly honored and respected, that, upon his early death, he dedicated to him an original oration in memoriam, which he delivered in the academy of which La Mettrie had been a member. This intellectual physician, from his observations in the sick-room, was firmly convinced, that Descartes's assertion also applied to man, and he published his view in a brightly written book entitled "*L'homme machine*" (*Man a machine*). He adopted the view of Descartes and Leibnitz, that the animal body could be compared to a clock with innumerable wheels and springs, which was wound up and kept going by the food it assimilated; and he believed that in this respect the relation of the human to the animal body is no different than, for instance, the relation of an astronomical chronometer to a Black Forest clock, or the relation of the automaton of Vaucanson to the movable figures on a hand-organ. Although, in doing so, he merely gave expression to the secret convictions of older philosophers, and anticipated those of a large majority of posterity, his contemporaries, partly, because they were angered by his derision, and, partly, because they were disturbed in their calm belief, hated him, and they spared no effort to calumniate the memory of this, the first prophet of the modern materialistic school. Even the French encyclopedists, who said essentially the same thing in other words, joined in the general condemnation. His death, which was caused by too liberal an indulgence in a probably underbaked truffle-pie, of which he partook at the board of the French ambassador in Berlin, furnished a most welcome excuse to declare the gay, but in his conduct ever irreproachable man, a *non plus ultra* of debauchery, immorality, impiety and wickedness. It is but recently that the character of La Mettrie, who did no more than draw the correct and inevitable inferences from the Descartes theory regarding animals, has been cleared from the marring blots which religious bigotry and philosophical fanaticism had cast upon it; and some years ago Dubois Reymond held an effective oration in the Berlin academy in defense of the much-condemned philosopher.

The calculation of the Cartesians, that they would protect man from similar comparisons by attributing to him a soul, which animals are without, was evidently an error. For upon close investigation we find this soul so closely and inseparably interwoven with the mechanism of the body, that it cannot be parted therefrom without being injured. There are innumerable actions, apparently regulated by the will, but in reality entirely independent of it. If, when falling, we carefully extend our hands to break the force of the fall,



this occurs quite involuntarily, and we scarcely know that we did so. But many of our intentional actions occur under a similar coercion, and finally it becomes extremely difficult to decide just where "free will" begins in man. The closest self-observation and all the conning of philosophically-inclined heads have not been able to determine whether man really possesses a free will; and very profound thinkers have emphatically denied it. Without doubt the physical actions are being constantly regulated by the central organs in which all external influences meet; but not less frequently it is evident that the body is commanding and the mind is obeying. This co-operation becomes most instructive when we observe how that which is mentally acquired, is finally absorbed into the automatic mechanism of the body. "Our animal," as the brilliant Xavier de Maistre termed the human body, cannot without due trouble learn to talk, write, work, play the piano, etc. But when the muscles are once accustomed to it, the mind, having done its duty, can be dispensed with, and "our animal" walks quite unconsciously, and dances and plays the piano entrancingly; yes, there are said to exist automata even so accomplished, that, like the machines of Kempele and Vaucanson, they can chatter a whole evening, and write thick volumes without any thought whatever. In all similar accomplishments, the mentally acquired has been absorbed into the physical automatism, and this transition is the great stumbling-block in the whole question.

Far be it from us to consider the comparison of a man with a machine a justifiable one, but we think we have shown how unjustifiable and even dangerous it is to attempt to apply this comparison to an animal.

In order to avoid such unsuitable and irrelevant comparisons, we can do nothing better than to accord to the brute a higher place and a small share of the mental capacity of which we are so proud; otherwise our undeniable relation to the brute would necessarily debase us to its own level. Among the ancients, already, those who denied that the animal possessed sense and reason, were opposed by a large number of philosophers and naturalists. Parmenides, Empedocles, Democritus, Anaxagoras, Strabo, Ænesidemus, Plutarch and many other philosophers taught that the animal draws conclusions and treasures experiences very similarly to man, and also some Christian ecclesiastic authors, such as Arnobius, Lactantius, and others agreed with this opinion.

Even in more modern times, there is perhaps no philosopher or naturalist who has been warmer in his defense of the animal against undervaluation and depreciation, and who has more strikingly brought out its similarity to man, than the Neo-platonic philosopher Porphyrius, in a very fine treatise, in which he

endeavors to convince his friends and disciples that, for moral reasons, they ought not to eat meat. He says that we regard all human beings as related to us, firstly, because they are all of similar descent, and then, because of the similarity in the build of the body, in food and in customs. But animals are of the same origin, possess a like physical constitution, like feelings, desires, passions, aye, even like sicknesses, as man. The souls of different animals vary just as do their bodies, but in principle they are alike. "Now," he continues, "if customs are the result of mental and physical constitutions, and if all animals think, and only differ in their descent and manner of bringing up, then all living creatures are related to us and of the same origin; they all possess the same system of nutrition; they all, as Euripedes says, have a mind and red blood, proving our mutual parentage of heaven and earth."

This emphatic declaration of the natural relationship of all living beings to each other, is almost without parallel in all ancient literature, and most excellently this enthusiastic defendant of oppressed animal-creation continues to prove that animals see, hear, smell and taste just as man does, and in many cases are endowed with senses far more acute than ours. "The differences of organism," he says, "may create differences of sensation and thought, but they cannot alter the *soul-life* any more than they can expunge or kill sensation. We may then accede to a *more or less*, but not to a positive *non est*, saying that we possess it, but they do not." With the same right with which we deny that animals possess reason, Porphyrius sarcastically adds, the Gods might deny that we possess it, because they are far more intelligent than we are.

Neither Giordano Bruno, who in his treatise on the "Cause, the Principle and the One," made similar observations regarding the relation of the animal to the human soul, nor Rorarius, who, although he was nuncio to Pope Clemens VII., wrote an excellent book in much the same spirit, gave better illustrations of the striking similarity between the animal and the human intelligence, than did Porphyrius almost a thousand years before. Yes, it almost seems as if he were addressing one of our worthy contemporaries, who disputes the similarity in the mental processes of man and brute,—when he says: "How absurd it is to say that animals do not experience joy, have no sentiment, know no fear, make no resolutions, are devoid of memory;—but that the bee only "apparently" remembers, the swallow "apparently" makes a resolution, the lion "apparently" possesses sentiment, the deer "apparently" is timid. I wonder what they would say if some one were to assert that animals do not really see or hear, that they only "apparently" hear and only "apparently" see, only "apparently" talk, in



fact, they do not really live at all, but only "apparently" live." There is a bitter but well-founded irony in these words, which, incredible though it may seem, are applicable to animal-psychologists of the present day.

(To be continued.)

#### AN ENGLISH MONIST: PROF. SEELEY OF OXFORD.

BY XENOS CLARK.

##### II. A NEW VIEW OF ATHEISM.

In a previous essay the views on theism which Prof. Seeley sets forth in his *Natural Religion*, were outlined; a word may now be said as to his treatment of atheism, a topic which he handles in a manner almost startling for its originality, and for the new outlook opened before the unsuspecting reader, who perhaps has begun the subject with gloomy anticipations of the old-fashioned, conventional invective against disbelief. Of invective there is enough, of a reasonable kind, but it is employed in a quite new manner. *The Abuse of the Word "Atheism"* is the title of the chapter, and it is the author's object to show that men apply the word in question wrongly, and that it is this mistaken use of the word which feeds the common belief that atheism is on the increase. Let us not be frightened, Prof. Seeley says at the beginning, by the terrific things said, and the terrific controversies waged on this dread subject. For it has often been remarked of theological controversies, that they are never conducted more bitterly than when the difference between the rival doctrines is small. This is nearly correct, but not quite; our author adds: "If you want to see the true white heat of controversial passion, if you want to see men fling away the very thought of reconciliation, and close in internecine conflict, you should look at controversialists who do not differ at all, but who have adopted different words to express the same opinion." This being so, it may be well before condemning atheism indiscriminately, to inquire carefully just what it is, and what it is not, and it possibly will turn out that some things commonly given this name are worthy things and undeserving of the appellation, while other things not given the name ought to be doubly marked with it.

For what is atheism? It is, says the author of *Natural Religion*, but another name for feebleness. It is not the name for a wrong belief, but for absence of belief—for that weakness of mind which cannot hold any positive view about the universe. Free-thinking, therefore, is not atheistic, because it has a positive belief, nor Science, for it has likewise. "An atheist, in the proper sense of the word, is not a man who disbelieves in the goodness of God, or in his distinctness from Nature, or in his personality. These disbeliefs may be as serious in their way as atheism,

but they are different. Atheism is a disbelief in the existence of God—that is, a disbelief in any regularity in the universe to which a man must conform himself under penalties." This is very clear. The scientific man then, the rationalist, the positivist, the pantheist—none of these can be atheists, for they believe in a "regularity in the Universe, to which a man must conform himself under penalties." We must notice that God, in Prof. Seeley's dialect, is not an exalted personage, surrounded by angels, who dwells somewhere in the empyrean; he is the great, and good and guiding influence in the Universe—is law, unity, human progress, "any regularity to which a man must conform himself under penalties." This is God; and a disbeliever in God is one who acknowledges no such influence.

We may pause here a moment to inquire what is Prof. Seeley's object in thus newly defining atheism, in a way which seems to withdraw much of the old terror from the word? Is it merely a cheap trick—a turning of the tables on the theologians—a scheme to soften the infidel's thorny seat? No one who has read the book will believe so. The author is too earnest, too devout, too tolerant a writer for such a device; he is a man with a far-reaching purpose—a purpose constructive, not destructive; and we see that he appeals to thoughtful men, not to the rabid mob, whose conception of intellectual progress is throwing mud and smashing windows, and whose estimate of a book's value rises with the number of cheap jibes it contains. Since, then, Prof. Seeley does not address radicals, but liberals, what is the animating purpose in his treatment of atheism? It is, I think, to clear away the burden of petty considerations which weigh down this subject. We all know great and good men with characters rich in every highest effort, who walk through life branded as atheists; we have known also puny, shrunken, conventional lives called theistic, and in our hearts, whatever the lips may say, we never doubt which of these two classes really lives nearest to God. The church declares the former lost, the latter saved; but we know what our hearts think; and now, Prof. Seeley seems to come and say, in his fine, strong way, let us say what our hearts think. But, he seems to say also, let us not repeat the mistake of the churches' and, simply reversing their method, call everything atheistic, excellent, and everything theistic, vile. Rather than that, we should inquire how it was the churches fell into so great an error, and then seek to avoid similar ones. Doubtless they fell into it through clinging to a conventional idea of God, adopted from the past, and therefore ill-suited to the present which they nevertheless insisted must suffice for the present. The great need, then, is to broaden the idea of God. Has nothing great or good come into



the world since the Bible was written? Let men seek, then, for what is Godlike in that, and name it such. The contrary course has too long prevailed. Scientific men, accepting the designation of atheists, given them by the church, have hardened themselves to life without a God—the greatest deprivation they could know, and one unnecessary in their case, as we have seen. To rectify this mistake of the churches, to show such men that they are not atheists, but still have a Deity, is Prof. Seeley's main purpose, I think, in the chapters of his inspiring book.

But if, then, in this new and broad and deeper sense, so many things which men have been accustomed to call atheistic, are not really such, is there, the reader may ask, anything whatever to which the name may be rightly applied? Yes; there are many such things. Returning to the definition of atheism as the failure to recognize any dominant order or power in the Universe, it is clear, in the first place, that the head-strong and self-willed person is an atheist. "Not to recognize anything but your own will; to fancy anything within your reach if you only will strongly enough, to acknowledge no superior power outside yourself, which must be considered, and in some way propitiated, if you would succeed in any undertaking; this is complete willfulness, or in other words, pure atheism." And Prof. Seeley gives for an instance of this the case of unhappy Poland, who "expiates the crime of atheistic willfulness—the fatal pleasure of unbounded individual liberty, which rose up against the very nature of things."

Then again the Philistine, the little-minded man, no matter what his creed, is an atheist. A wrong belief about God is not necessarily atheistic, but a puny any petty belief is, because it is really no belief at all. This class, the Philistines, constitute the large populations, the thriving communities of the world; they are the people who think of God only on Sunday, and then merely in a conventional way; their life consists of details, their thoughts never seem to respond to the ennobling influence of laws and principles, "their homely talk never willingly travels beyond what time the train starts, and whether it happened on Monday or Tuesday." All such are atheists.

When the French Revolution flamed through France, who were the true atheists? Not the Revolutionists, who had a strong and energetic belief, but the crowd of Voltairian Abbés-cynics, good-livers, priests, performing the services of a religion in which they had lost all genuine faith—with which their connection had become merely conventional. Such priestly forms of atheism are common in the present time, when so many ministers of the gospel find their faith undermined, and yet cling to the old forms. Trusting thus neither the old nor the new, their lives

are apt to become cynical and hollow. "In the ardor of conflict they have pushed into the foreground all the weakest parts of their creed, and have learnt the habit of asserting most vehemently, just what they doubt most, because it is what is most denied. As their own belief ebbs away from them, they are precluded from learning a new one, because they are too deeply pledged. As their advocacy grows first a little forced, they by degrees become consciously hypocritical, until in the end they secretly confess themselves to be on the wrong side; what a moral dissolution! Henceforth, they see in the universe nothing but a chaos. They are atheists, without a God, because without a law. Such men may often be noted among the most intelligent adherents of aspiring causes."

These—the self-willed man, the Philistine, the priestly sceptic—are some instances of true atheism, given by our author. And he does not pause with these. Every trite and shallow and useless existence he would call atheistic—the lounge, the cynic, the Utopian, the enragé—whoever sees no dominant power and order in the universe, and finds no serviceable work to do for its sake.

As Atheism is but another name for feebleness, so the universal characteristic of belief, Prof. Seeley says, is energy. He who has a faith is twice himself. Just as atheism does not consist in a wrong belief about the universe, but in the absence of any substantial belief whatever, so theism "consists not in possessing a true, or meritorious, or consoling theory, but simply in possessing a theory of the Universe. He who has such a theory acts with confidence and decision; he who has no such theory is paralyzed." So rude a theory of the universe as Mohammed's, restored a scattered nation to unity and power; so harsh and unconsoling a one as Calvin's has given vigor and heroism to thousands of its votaries. And here we turn to Science. Is Science atheistic? No, for it recognizes a dominant order or power in the Universe. Although Science does not find in Nature any special benevolence toward man—although it finds there little hope of a future life—still it does not follow that its votaries are not theologians, and it is quite clear that their theology gives them energy. Many other theologies, besides Science, have admitted no future life. And although Science does not believe that Nature is benevolent, "yet it has all the confidence of Mohammedans or Crusaders. This is because it believes that it understands the laws of Nature, and that it knows how to deal so that Nature shall favor its operations. Not by the Sibylline books, but by experiment; not by supplications, but by scientific precautions and operations, it discovers and propitiates the mind of its Deity.

The conclusion, then, is cheering. Science we



see, is not irreligion, but a different kind of religion; a kind not always inspiring perhaps, but still a religion. And as to "atheism, that demoralizing palsy of human nature, which consists in the inability to discern in the Universe any law by which human life may be guided, there is, in the present age, less danger than ever, and it is daily made more and more impossible by science itself."

I have intentionally quoted very freely from Prof. Seeley. No other manner of presentation could do justice to his notable book, in which the *manner* of writing is as significant as the matter. And, instead of attempting a summary of the whole volume, which, crowded as it is, with fresh and original thought, would have been impossible, I have taken the alternative course of presenting with some fullness, the author's views on two main points: on theism and on atheism, in their relation to Science. His position on these points, as will have been seen, is thoroughly monistic; *i. e.*, he finds in that order and oneness of the Universe, which science has made evident to man, the Deity and the religion of the future. This idea, and cognate ones, are developed through a series of pregnant chapters. They are entitled: God in Nature; The Abuse of the Word "Atheism"; The Words "Theology" and "Religion"; Three Kinds of Religion; Natural Religion in Practice; Religion and the World; Religion and Culture; Natural Christianity; Natural Religion and the State; Natural Religion and the Church.

But every reader should know the book at first hand. Written by one of the most eminent of English scholars, who had previously surprised and charmed his contemporaries with his "*Ecce Homo*," it is one of those works which really effect something. Every page gives evidence of the incisive thinker in touch with all the influences of modern thought; but also of the humane and cultivated scholar, gladly cognizant of what history has already done for the race. To those who feel that history has done nothing for the race—who would sweep the board clean and begin anew—Natural Religion indeed will have little meaning, and little to those whose lofty ideal of the intellectual life is to post themselves on the street-corners of literature, and pass their time tweaking off the hats of the clergy as they pass. Fortunately, these two classes, or this one, for they are identical, are on the wane; and there could be no better evidence of the fact, than the appearance in the field of liberal literature, of such solid and scholarly works as *Natural Religion*.

#### ECONOMIC CONFERENCES.

BY WHEELBARROW.

I hail it as a healthy sign that the political unrest created by the "Labor" agitation has weakened the division-wall between capital and labor in Chicago;

and let us hope that in due time the wall will be shaken down. At last some of the just and more enlightened men of the wealthy class hold out their hands to the laborers and say, "Come let us reason together." This invitation has been accepted, and the result is an interchange of opinions through the medium of "Economic Conferences," where all sides may be heard.

That we are in a state of social war is due largely to the ignorant rich. They have made themselves a caste having rights, to whom the poor are a caste owing duties. The rich who are not ignorant must also bear a part of the responsibility. They have wrapped themselves in pleasure, and have avoided the meetings and discussions of the working men. They have abandoned the laborer to his errors, and made an enemy of him who might have been a friend. They have shorn the locks, and put out the eyes of Samson, but his arms clasp the pillars of the temple. They have left the working man to his passions and allowed him to become the spoil of demagogues and blind leaders of the blind. They refuse to meet the laborer in debate, and then they reproach him for his fantastic visions of a new and impossible society. They decline to guide the people right and then complain because others guide them wrong.

When the wild and irrational tactics of the Trades Unions alarmed Great Britain fifty-five years ago, Macauley warned the ignorant rich, and the luxurious rich that because of their neglect the poor had fallen under evil guidance, and he adapted the parable of Gotham to the social condition of England. The trees having decided to elect a King, the vine would not accept the office because of its cheeriness, and the olive would not because of its fatness, and the fig-tree would not because of its sweetness; so the bramble was anointed King, and out of the bramble came the fire that devoured the Cedars of Lebanon.

I greet these conferences as a truce to barbarian methods on both sides, to the vengeance of the bomb, and the vengeance of the gallows. There are moral forces throbbing in the rich and poor alike, and out of these forces all measures of reform must come. Physical and intellectual powers make changes, but only moral forces make reforms. It is not true that in this land we have reached the alternative between anarchy in robes and anarchy in rags.

In the "Conference" course the opening was given to the working men, and the first lecture was by Mr. Geo. A. Schilling, an eloquent man and a leader in the "order." His theme was "The Objects of the Knights of Labor." The hall was crowded, and the audience was highly charged with mental and spiritual electricity. The positive and negative elements of opposing social forces were under very active excitement, while the banker and the blacksmith, the millionaire



and laborer jostled each other in their eagerness to hear a "Knight" of the latter day crusade which is to rescue the holy land from lords, rents, mortgages, and monopolies, a soldier in the chivalry of labor. It reminded me that when I was a youth in England, it suddenly became the fashion for earls and barons and bishops to come to the Mechanics Institutes and lecture to the working men. They spoke to us with a patronizing air, and we listened with humility as became our lower station. At Mr. Schilling's lecture I was glad to see that neither "order" was disposed to ask or offer patronage. The genius of the occasion was democratic and its influence was good.

Mr. Schilling spoke as an advocate, and yet he declared himself opposed to some of the especial objects of the order. He confessed that radical differences of opinion existed among the Knights themselves as to the wisdom of their own constitution in some of its essential claims. He was himself an extreme individualist, opposed to the theory and doctrine of state socialism on which the order itself was built. He would restrict, and not extend the powers of government. More dangerous to the order than the men within it of opposite opinions, are the thousands of its members who have no opinions at all. From all this it is easy to predict the early dissolution of the society. In the evolution of organized labor it must give way to more scientific agencies; to a higher order of Knighthood able to contend with the actualities of life, and to muster into service all the moral forces of the time.

Mr. Schilling is an enthusiast, and his argument had much of the strength and some of the weakness that belong to enthusiasm. Parts of it reminded me of the Wendell Philipps I heard long ago. He said, "The hanging of a few agitators will not abolish popular discontent." This is true, because the discontent will remain so long as the reason for it remains. John Ball organized the Knights of Labor in England five hundred years ago. The government hung John Ball, but the Knights had more necks than the government had ropes, and the order in some form or other has lived on to this day. The weakness of Mr. Schilling was his apology for the exclusive, aristocratic, monopolistic principle which actuates the Knights of Labor. It is no excuse that the working man, suffering under a sense of wrong, his home forever haunted by the ghost of hunger, has a right to clutch at the law of self preservation, and shut his fellow craftsmen out of that part of the labor market where his own muscle is offered for sale. He has no such right, and the assertion of it has ever been the weakness of the Trades Unions, and the Knights of Labor. The Exclusion principle is unjust, and like every other injustice it carries punishment and failure upon its wings. Labor statesmanship, like all other statesmanship must stand on a moral foundation,

or it will not permanently stand. The objects of the Knights of Labor cannot be separated from their methods, and they must all be criticised together.

Among the objects of the Knights of Labor was this: "The greatest good for the greatest number," and Mr. Schilling's own defense was evidence that in the mathematics of the Knights the greatest number is number one. It is a deceitful phrase always used to cloak the tyranny of those who claim to act for "the greatest number." In political morality there is no such principle, because it implies a smallest number outside the Common Weal; a smallest number entitled only to the smallest good. I never see this popular bit of sophistry without looking behind it for some injustice which it covers, and I generally find it. Slavery used to be justified for "the greatest good of the greatest number," and in the present case the sentiment is used to excuse practices which in themselves are indefensible, harsh regulations which arrest liberty, which make work for one man and idleness for another, which are supposed to make high wages for the "Knight," and low wages for the churl. I advise the Knights to erase that false motto from their coat of arms, and substitute for it "the greatest good for all."

Mr. Schilling claimed, and with success, that the use of machinery in the mechanic arts and the subdivision of hard hand and brain labor into easy elements had changed industrial conditions and had silently worked a social revolution in 50 years; a revolution in which the working men had altogether the worst of it, and whereby capital had multiplied its power; a revolution by which the master has become a more and more intelligent energy, and the workman a more and more unimportant and unintelligent hostler, harnessing and unharnessing, driving, and grooming the machine. Of the multiplied product the greater part had gone to the owner of the machine, and very little to the hostler. This was not the exact language of Mr. Schilling but it was the substance of his claim, and I think he was right. Ingenious machinery has broken up several of the mechanic trades into separate bits of work, each one of them requiring very little strength and very little skill. Where formerly twenty men made twenty watches, each man making one, twenty girls will now make two hundred watches in twenty separate parts. The girls simply tend the machines whose cunning fingers make the wheels, and springs, and all the inside works with a delicacy and precision that human fingers cannot imitate. The shoemaker is becoming extinct like the Indian. The shoes are made in parts by different machines. Furniture is made in the same way, and cabinet making will soon be among the forgotten arts. This evolution of industry is the puzzle of economics, the despair of politics. That this multiplied product is a blessing to mankind is true. It is immensely for the



greatest good of the greatest number, but there is a smallest number stunned and bewildered by the revolution claiming that society has abolished its means of existence, and giving back to it no compensation out of the increased abundance. That society will adapt itself in time to the changed conditions is true, but while society is doing it two million willing hands are reaching out for work and unable to obtain it.

I know the claim is made that the increased product is fairly divided, although not equally divided and that the working men are getting absolutely and relatively a greater share of it than capital receives. Mr. Edward Atkinson asserts that the rate of wages has been increasing absolutely in more money, and relatively in lower prices for what the workman has to buy. He proves it by the statistics of 60 years. His figures are fallacious, for the problem is not the rate of wages and the price of provisions to the man in work, but the puzzle is this, what is the rate of wages of the man who is earning nothing? And what is the cost of provisions to the man who is not getting any wages at all? The million or two of willing workers who are not able to obtain work is a factor in the problem that confuses the statistics, and gives a moral contradiction to the mathematical proof. Labor is not prosperous wherever there is an over-production of men.

While our moralists and statesmen stand baffled and dumb in the presence of this ugly fact, is it any wonder that untaught laborers blunder in their statesmanship too? Is it any wonder that like the fly in the spider's web they entangle themselves more and more in their efforts to be free? Must we expect more wisdom in them than in their masters? More virtues too? They will struggle for better things. They may not struggle wisely, but they will not lie down. If their plans are vicious help them to better plans. Society must learn that moral consequences are not to be evaded, and that justice must be done. Working men begin to see how precarious is their bread. They begin to see how easy it is to "lock them out" whenever the "trust" they are working for chooses to "shut down" in order to make scarcity and raise prices. In the midst of the ills they suffer, and the greater ills that threaten them it is folly to expect that working men will quietly lie down and patiently await their doom. "I shall be made into soup to-morrow," says the turtle in the restaurant window to the passers-by, but we must not expect such calm philosophy as that from the American working-man.

"The Earth is the Lords, and the fullness thereof;" and according to the Knights of Labor it belongs to all his creatures. Literally, they want the Earth, and this claim is endorsed by Mr. Schilling. He is opposed to the private ownership of land, or as he called it the monopoly of land. He contended that all the people

should have free access to the land, and that mines ought never to be private property. He said if the coal mines of Pennsylvania had not been owned by a few rich barons the strikes would not have occurred. Perhaps the strongest point in his lecture was this, and the strength of it was due not so much to its abstract merit as to the fact that the avaricious combinations of mine-owners increase the price of coal, while their absolute control of the markets enables them to "lock out" the miners at any time when they want to stiffen prices by making scarcity. Land ownership although its abuses may be modified can hardly be abolished. Give a man free access to the land and the very day he applies his labor to it, he becomes entitled to some security for its permanent possession, and ownership is nothing more than that. Ownership of land has always developed the free spirit of a people, and it may be doubted whether it is possible to abolish the freehold without abolishing freedom too.

Mr. Schilling was opposed to the demand of the Knights of Labor that the capricious power called "Government" should own and operate all the railroads, canals, telegraphs, banks, boats, bridges, gas works, water works, Express Companies, and other enterprises, on the principle that government becomes despotic in proportion to its power, and for the further reason that government is not able to work as efficiently and cheaply as private individuals can. The whole question is one of expediency rather than of principle and depends greatly on the conditions that surround the government, and on the elements that comprise it. In this country the scheme would be a good thing for "the party in power." It would make the tenure of office permanent, and settle the question of civil service reform. At the last presidential election all the mail carriers marched in the Blaine procession. Had all the railroad men and telegraph men and the rest of them joined in the line we should have seen at once how hopeless would be any attempt to "turn the rascals out." And it is a curious phenomenon in this country that the "ins" are always the rascals and the "outs" the honest men.

In some respects the Knights of Labor builded better than they knew, and better than they ever meant to build. For instance in the demand that women shall have equal rights with men for equal work. This has come to mean not only the right of women to equal wages, but the equal right of women to earn wages wherever they can, and this meaning is given to the claim by many of the Knights, perhaps by a majority of them now. It was not so intended at the beginning. Behind the fair face of it was concealed a sinister design. The intention of it was, though all the Knights may not have known it, to draw the line between men and women at the sewing machine, and to drive the



women back behind that line. It was thought that if this demand for equal wages could be enforced, employers would say, "well, if we must pay the same wages to women as to men, we may as well have men." Some of the Knights have a hope that such will be the effect of it yet, but most of them are now, as a few of them have always been, sincere in their claim of equality for women. Besides, the women are so strongly entrenched in the professions, the clerical employments, and the lighter mechanical trades that it would be impossible to turn them out. In this, as in some other things, the order has had an educational influence on its members. Its successor, for it will have a successor, will abandon many of its claims and dogmas as gladly as men discard old boots that never fitted them. The new order will be wiser and better than the old one.

The means by which the Objects of the Knights of Labor are to be achieved according to Mr. Schilling, are Agitation, Education, and Co-operation. I have only room for a remark on the Education plan. When Mr. Schilling was asked if the Knights included in their scheme of "education" the instruction of the hand, the right of a boy to be educated in a trade, he would only answer affirmatively for himself, and was not willing to do so for the Knights of Labor. It is well known that the Knights of Labor restrict the education of the hand, which they have no more right to do than they have to restrict the education of the mind. They have no more right to forbid a boy to learn a trade than they have to forbid him to learn reading, writing, and arithmetic, for by the aid of these he may some time or other compete with some Knight for a job. They have no more right to sentence a boy to hard labor for life with a shovel, a wheelbarrow, and a hod, than they have to sentence him to hard labor in the penitentiary. So long as they persist in doing it they will fail to get the sympathy of just and liberal men outside the order, and they will lose the sympathy of many just and liberal men inside of it. Their platform must come to the test of the spirit-level, and all its inequalities must be planed away. Otherwise the order will be an obstacle in the path to liberty, a hindrance to the elevation of labor.

#### THE BIBLE AND FREE THOUGHT.

At present there are two distinct views concerning the Bible, viz., that of the so-called orthodox, and that of the irreligious radical. Those advocating the former view believe that the Bible was revealed by divine inspiration and communicated word for word. They declare that it contains nothing but truth,—absolute truth. The advocates of the latter view consider it a book full of paradoxes and contradictions. They ridicule it as the *non plus ultra* of superstition and the very basis of bigotry.

Both parties are in error. The Bible although not dictated by the Holy Ghost *verbatim*, is from a human and secular standpoint the grandest and sublimest book we have. Compare it with the sacred books of other nations, with those books which are the old store-houses of ethical, religious and mythological ideas. Compare it with the *Koran*, with Hesiod's *Cosmogony*, or the *Völuspá* of the Northern Edda, or the *Zend-Avesta*, or even the *Vedas* and the *Buddha Gospels*. What impartial judge would not give preference to the Bible?

Goethe found in the Bible an invaluable store and an inexhaustible mine of poetry; he ranked it far above Homer. Read the passage in Humboldt's *Kosmos*, where he expresses his admiration for the Hebrew literature and more especially the poetry of the psalms!

The sacred books of all nations, and particularly the Bible form the basis of our modern ethics. That the Bible should bear traces of the times in which it was written, is quite natural. But it also points far beyond its time, in that it contains germs which have developed into a higher ethical culture. It is this that gives to the Bible its value.

The Bible, when regarded from the standpoint of narrow bigotry, becomes a tissue of almost unexplainable absurdities. How many things, which can be explained by the ideas and manners prevalent in those times, must now appear incongruous. No matter how much the irreligious and flippant scoffer may differ from the bigot in his ultimate opinion concerning the Bible, his view nevertheless coincides with the latter's in that they both gauge the Bible according to the same standard. Both demand proofs of absolute truth; and because the infidel does not find them he deprecates it and ridicules the pretensions of believers. Both the bigot and the scoffer lack scientific insight.

If we consider the Bible from the standpoint of the severest and most radical criticism, we shall only learn to prize it all the more, on account of its poetical treasures and on account of the valuable evidence it affords of the growth of religious, ethical and philosophical ideas.

From this standpoint of careful and earnest scientific investigation the Bible will be read with the greatest pleasure and edification.

We prize our old legends of fairies and witches, heroes and ogres, of the shepherd boy who slays the giant and becomes a king, but we are blind to the beauty of the story of David and Goliath. And why are we unable to appreciate its charm? Is it not because, when we first read it with our teacher, the human features of the story were ignored? They were purposely thrown aside and something superhuman, something awe-inspiring was wrongly substituted; and this made the whole tale unintelligible to the child.



The Bible if not distorted by narrow-minded bigotry is a rich mine for every one. The child's love for stories is satisfied, the historian finds records which are of the greatest importance for our knowledge of the patriarchal era of mankind, its customs and habits, its beliefs and superstitions, its laws and its culture. And above all, those who want to found their actions upon a firm basis of rules and principles, who aspire toward religious or ethical ideals, will find the most fertile fields in the books of the Bible, if they search in the right spirit, prejudiced neither by credulous acceptance nor flippant rejection of all their contents.

The Old Testament is one of the strongest supports of free thought, and the words of Christ are so full of truth and righteousness that they have rung through almost nineteen centuries and have not as yet lost their power. They have been wrongly interpreted, they have been scoffed at and ridiculed, they have been criticised and condemned, but they survived nevertheless, and will live on in the ethical development of humanity. The radical freethought of the Bible is perhaps not understood by those who say "Lord, Lord," who read and worship the letter and lose sight of the spirit.

Mr. Salter, the well known lecturer of the Society for Ethical Culture in Chicago, speaks in *The Christian Register* (Jan. 19, 1888) of the significance of Jesus for our time. He says: "The charm about the name of Jesus is that he dared believe in something different from what he saw about him. He loved justice in his soul, but with his eyes he saw injustice."

Christ's word, "Ye resist not evil," is a lesson to the human race which people even to-day have not yet understood. We are still prone to obey the old rule: "An eye for an eye and a tooth for a tooth." If one does injustice to another, this other thinks the best remedy is for him in his turn to do another injustice. It is almost an unwritten law of our social code "to render evil for evil and railing for railing." If the monopolist oppresses the workmen, the trades-unions expect to help themselves by committing a similar injustice. We must be educated to "a perception," as Wheelbarrow says, "strong enough to see that freedom to oppress others is not freedom." It will perhaps take some centuries for society to learn that the wrong-doer injures others and himself still more. He who seeks revenge by retaliating does not right the wrong but aggravates it. He intends to restore justice and increases injustice.

There are but few who can distinguish between an honest fight with their adversary and a hateful persecution of their enemy. The former is our duty, the latter is deplorable, and if done in a cowardly manner with the help of lies and slander, it is even despicable. So long as we stick to the old rule of rendering evil

for evil, every evil will beget a new evil. But if we let it alone, if we fight our struggles honestly without bearing any hatred toward our adversary, evil will be exterminated.

The real Christian is not he who believes the marvelous stories told in the Bible, but he who acts in accordance with the teachings of Christ, which finally must be recognized as true in their spirit and humane in their nature. They are right and correct and will outlast the worldly wisdom of retaliation. They will come to be recognized more and more, not only as noble and sublime from the ideal point of view, but also from the lower standpoint of practical prudence.

We would therefore call the attention of the free-thinker and of the bigot to the Bible. The one will find in store for him treasures of most radical thought, love of justice and truth, which he did not expect, and the other will learn that Christ was different from what he is generally represented in the orthodox pulpits. Our modern ethical civilisation is evolved from the biblical teachings and we have not as yet been able fully to comprehend all the ideas embodied in them, nor to realize them in actual life. Mr. Salter in the above quoted article says: "Religion must inspire to personal and social reform. That is the only thing that is religion in the modern world. All else is the tradition of an earlier time, when justice and judgment were committed to other hands than man's." \* \* \* "We cannot pray for justice any longer. We have to do it. We cannot say, Thy kingdom come. We have to obey the God who commands us to create it."

If any one who claims to be a teacher of free thought and ethical progress, disdains the prophets in the Old Testament, or the Doctrines of Christ in the New Testament, if he scoffs at his followers, the Apostles, Paul, Augustin or Luther, because they were in many respects not so far advanced as we are now, he seems to me like an engineer who foolishly prattles about the stupidity of Watt and Stephenson or other great inventors because their engines were poor in comparison to the engines of to-day. An engineer of such stamp will not become an inventor. Due reverence for and appreciation of the merits of the past is the only foundation on which a truly grand future can be built.

Radicalism is needed in our churches and our clergy should know that free thought—in its best sense—can never destroy religion, but on the other hand religion is wanted among our freethinkers. They should know that true religion is the most radical power of a consistent free thought which in constant opposition to narrow-minded bigotry leads humanity onwards in the path of progress.

P. C.

Evil is wrought by want of thought as well as want of heart.—Hood.



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XIV.—Continued.

The north wind howled round the two neighboring houses, covered the window panes with ice flowers, but within doors one day followed the other with varied coloring and full of light, and each evening, more enjoyable than the other, passed over the heads of the happy couple, whether they were alone or whether the friends of the husband, the instructors of the people, sat with them at the tea-table where a simple meal was spread.

For the friends of her husband and their clever conversations are pleasant to the lady of the house. The lamp throws a festive light in Ilse's chamber, the curtains are drawn, the table well-furnished, and a decanter of wine is placed on it when the gentlemen enter. Frequently the conversation begins with trifles; the friends wish to show their esteem for the Professor's wife—one talks a little about concerts and another recommends a new picture or book. But sometimes they come out from the study in eager conversation; their discourse is not always quite within her comprehension, nor always very attractive, but on the whole it gives her pleasure and refreshes her mind. Then Ilse sits quietly there, her hands, which have been active in her work, fall into her lap, and she listens reverently. No one who is not a professor's wife can have any idea how charmingly the conversation of the learned flows. All can speak well, all are eager and all have a composed manner that becomes them well. Discussion arises and they begin to argue on weighty points, their opinions clash, they contradict each other, one says first black, the other white; the first shows that he is in the right and the second refutes him and drives him into a corner. Now his wife thinks, how will he get out of this; but she need have no anxiety, he is not at a loss—by a sudden sally he gains the advantage; then the other comes with new reasons and carries the matter still further, and the others join in, they become eager and their voices are raised, and whether at last they convince one another or each remains of his own opinion—which is frequently the case—it is always a pleasure to see light thrown on difficult questions on all sides. If one of them has said something really important and arrived at the heart of the matter, it puts them all into an elevated mood; it seems as if a supernatural light had burst in on them. But the cleverest of all, and he whose opinion is listened to with the greatest respect, is always the dear husband of the lady of the house.

Ilse, however, remarked that all the learned gentlemen had not the same amiable character. Some could not bear opposition and seemed in weak moments to consider their own importance more than the advancement of truth. Again, one would only speak and would not listen, and narrowed the conversation by

always returning to the point which the others had already surmounted. She discovered that even an unlearned woman could, from the discourse of the wise men, discern something of their character; and when the guests were gone she ventured to express a modest judgment upon the learning and character of individuals, and she was proud when Felix allowed that she had judged rightly.

In such conversations the wife of the scholar learned much that to other women remained incomprehensible. Thus there were, for instance, the Roman plebeians. Few women understand what that means. The old plebeians never gave tea-parties, never played on grand pianos, never wore hoop-skirts and never read French novels. This class is a very odious institution which has been buried in the ruins of antiquity. But the wife of a philologist is informed concerning all this. It would be impossible to recount all that Ilse heard about plebeians and patricians. Silently she sympathized with the plebeians. She entirely repudiated the idea that they consisted of insignificant people and a wanton rabble, and considered them to be sturdy farmers and fearless politicians who, in unison, valiantly fought against the unjust patricians to the very end. In connection with this she thought of her father, and at times wondered whether some of her acquaintances would have been plebeians had they been Romans.

The gentlemen were very friendly to her and almost all had one quality which made their intercourse very pleasant—they were always willing to explain. At first Ilse did not like to admit that she knew nothing of many subjects; but one evening she seated herself by her husband and began: "I have come to one conclusion. Hitherto I have been afraid to ask questions, not because I was ashamed of my ignorance, why should I be? but on your account, that people might not remark what a silly wife you have. But if you approve of it I will now do quite otherwise, for I observe that they take pleasure in talking and will be willing to favor me with a 'winged word,' as Homer says."

"Just so," said the husband; "they will like you the better the more interest you show in them."

"I should like to know everything about the whole world, in order to become like you; but I lack sadly the ability to comprehend."

The new plan answered admirably. Ilse soon learnt that it was easier to persuade her friends to talk than to desist from it. For they explained to her conscientiously and at great length what she wished to learn; but they sometimes forgot that the capacity of a woman who is receiving new impressions is not so fully developed as their own art of teaching.

They seemed to her to hover like gods over the earth. But they partook of the lot of the ambrosial society, for the pure peace which they sent into the



hearts of mortals did not always prevail among themselves and was easily frightened away by the throwing of the apple of the Goddess of Discord. It was Ilse's fate that soon after her arrival, when she was beginning to feel at home, a vehement feud broke out among the immortals of Olympus.

On a dark winter day the stormy wind beat against the window, concealing the adjacent wood behind clouds of driving snow. Ilse heard in her husband's room the sharp tones of Professor Struvelius in a weighty flow of eloquence, and at intervals the long and earnest talk of her husband. She could not distinguish the words, but the sound of the two voices was similar to the whirl of bird's wings or the rival singing of the thrush and the ill-omened crow. The conversation continued a long time and Ilse wondered that Struvelius should speak at such length. When at last he was gone, Felix entered her room at an unusual hour and paced silently up and down for some time, occupied in deep thought. At last he began abruptly:

"I am placed in a position that obliges me to communicate with my colleagues about our manuscript."

Ilse looked up at him inquiringly. Since her marriage there had been no talk about Tacitus.

"I thought it was your intention not to speak again of it to strangers."

"I have unwillingly broken my silence. I had no choice but to be frank with my associate. The realm of learning is unbounded and it does not often happen that associates in the same university pitch upon the same work. Nay, for obvious reasons, they avoid competition. If, therefore, by accident such a coincidence occurs, the most delicate consideration should be mutually shown by members of the same institution. To-day Struvelius told me that he knew I had been occupied about Tacitus and he requested some particulars of me. He asked me about the manuscripts that I had seen and collated years ago in other countries and about the fac-simile of the characters I had made for myself."

"Then you imparted to him what you knew?" inquired Ilse.

"I gave him what I possessed, as a matter of course," replied the Professor. "For whatever he may do with it is sure to be a gain to learning."

"Then he will make use of your labors for the advancement of his own! Now he will appear before the world in your plumes," lamented Ilse.

"Whether he will make proper use of what has been given him, or misuse it, is his affair; it is my duty to have confidence in the honor of a respectable colleague. That I did not for a moment doubt; but, indeed, another idea occurred to me. He was not quite open with me: he acknowledged that he was occupied with a criticism on some passages of Tacitus; but I feel certain that he concealed the most important particulars from me.

Nothing then remained to me but to tell him plainly that I have long had a warm interest in that author, and that since last summer I have been the more attracted to him by the possibility of a new discovery. So I showed him the account which first brought me into your neighborhood. He is a philologist, like myself, and knows now of what great importance this author is to me."

"My only consolation," said Ilse, "is that if Struvelius wishes to disinter the manuscript in our place, a hard fate awaits him at the hands of my sensible father."

The thought of the defiance of his stern father-in-law was consoling to the Professor, and he laughed.

"On this point I am safe; but what can he want with Tacitus?—his department was formerly not concerned with the historians. It can scarcely be imagined; but the most improbable things happen! Has the lost manuscript, by any accident, been found and got into his hands? But it is folly to worry about that."

He strode vehemently up and down and, shaking his wife's hand with great emotion, exclaimed at last:

"It is always disgusting to find oneself mastered by selfish feelings."

He again went to his work and when Ilse gently opened the door she saw him busy writing. Toward evening, however, when she looked after his lamp and announced the arrival of the Doctor, he was sitting leaning his head on his hand in moody thought. She stroked his hair gently, but he scarcely noticed it.

The Doctor did not take the affair so much to heart; but was very angry, both at the secret dealings of the other and at the magnanimity of his friend, and a lively discussion ensued.

"May you never regret this frank action on your part," exclaimed the Doctor. "The man will coin money from your silver. Believe me, he will play you a trick."

"After all," concluded the Professor thoughtfully, "it is not worth while to excite myself about it. Should he, by any improbable and unforeseen accident, really have come into possession of something new, he has a right to all the materials at hand—to what I have collected and to my assistance, so far as it is in my power to give it. If he is only exercising his acuteness on the existing text, all he may be able to accomplish will be insignificant as compared with our childlike expectations."

Thus imperceptibly and harmlessly did this cloud arise on the academical horizon.

A month had passed, and the Professor had often met his colleague. It could not be deemed strange that Struvelius never let the name of Tacitus pass his silent lips; nevertheless, the Professor watched the conduct of his colleague with concern, for he thought he noticed that the other avoided him.



One quiet evening Felix Werner was sitting with Ilse and the Doctor at the tea-table, when Gabriel entered and laid a small pamphlet, wrapped in a common newspaper, before the Professor. The Professor tore off the cover, glanced at the title and silently handed the pamphlet to the Doctor. The Latin title of this book, translated, was—"A Fragment of Tacitus; being a trace of a lost manuscript. Communicated by Dr. Friedobald Struvelius, etc." Without saying a word the friends rose and carried the treatise into the Professor's study. Ilse remained behind, startled. She heard her husband reading the Latin text aloud and perceived that he was compelling himself to master his excitement by slow and firm reading. The contents of this fatal writing must not be withheld from the reader.

Older contemporaries of the period in which tobacco was smoked in pipes, know the benefit of the paper-lighter, an invention which was commonly called *fidibus*; they know the normal length and breadth of such a strip of paper which our fathers formerly used to make out of musty old records. Such a strip, certainly not of paper, but cut from a sheet of parchment, had fallen into the hands of the author. But the strip had previously undergone a hard fate. Two hundred years before it had been glued by a bookbinder on the back of a thick volume, to strengthen the binding, and he had for this object covered it thickly with glue. On the removal of the glue there appeared characters of an old monk's writing. The word Amen and some holy names made it certain that what was written had served to promote Christian piety. But under this monk's writing other and larger Latin characters were visible, very faded, indeed almost entirely defaced, from which one could with some difficulty distinguish the Roman name Piso. Now, Professor Struvelius had, by perseverance, and by the employment of some chemical means, made it possible to read this under-writing, and from the form of the characters it was a work of antiquity. But as the parchment *fidibus* was only a piece cut from an entire sheet, it naturally did not contain complete sentences, only single words, which fell on the soul of the reader like the lost notes of distant music borne by the wind to the ear, no melody could be made from it. It was that which had attracted the author. He had ascertained and filled in the disjointed words and guessed at the whole of the remaining leaf. By the wonderful application of great learning, he had, from a few shadowy spots of the *fidibus*, restored the whole page of a parchment writing, as it might have read twelve hundred years ago. It was an astonishing work.

From this there was the following result: Most distinctly, although scarcely legible to common eyes, there had been written on the strip of parchment a certain Pontifex Piso—literally translated, "pea the bridge-maker." The parchment strip appeared very much oc-

cupied with this bridge-maker, for the name recurred several times. But the editor had shown from this name, and from the fragments of destroyed words, that the strip of parchment was the last remains of a manuscript of Tacitus, and that the words belonged to a lost portion of the Annals; and he had at last proved from the character of the shadowy letters that the strip of parchment did not belong to any extant manuscript of the Roman, but that it originated in one, quite unknown, which had been destroyed.

After reading the treatise the friends sat gloomy and thoughtful. At last the Doctor exclaimed:

"How unfriendly to conceal this from you, and yet to call upon you for assistance."

"That signifies little," replied the Professor. "But I cannot approve of the work itself; an over-great acuteness is applied to uncertain matter, and objections might be made against much that he has restored and supposed. But why do you not say openly what interests us both much more than the mistakes of a whimsical man? We are on the track of a manuscript of Tacitus, and here we find a fragment of such a manuscript, which has been cut up by a bookbinder after the Thirty Years' War. The gain which might accrue to our knowledge from this little fragment is so insignificant that it would not pay for the energy expended on it, being a matter of indifference to all the world except to us. For, my friend, if a manuscript of Tacitus has really been cut into such strips, it is in all probability the same which we have been in search of. What is the result?" he added, bitterly. "We become free ourselves from a dreamy vision which has perhaps too long made fools of us."

"How can this parchment be a part of the manuscript of our friend Bachhuber?" asked the Doctor; "many prayers have been written here over the old text."

"Who can assure us that the monks of Rossau have not written their spiritual aspirations over at least some faded sheets? It is not usual, but nevertheless possible."

"Above all, you must see Struvelius's parchment strip yourself," said the Doctor, decidedly. "An accurate examination may explain much."

"It is not agreeable to me to speak to him about it, but yet I shall do so to-morrow."

The day following the Professor entered the room of his colleague Struvelius more composedly.

"You can imagine," he began, "that I have read your treatise with especial interest. After what I have communicated to you concerning an unknown manuscript of Tacitus, you must perceive that our prospect of discovering this manuscript is very much diminished, if the strip of parchment has been cut from the leaves of a Tacitus which was preserved in Germany two hundred years ago."

"If it has been cut?" repeated Struvelius, sharply.



"It has been cut from it. And what you have communicated to me about this concealed treasure at Rossau was very indefinite and I am not of the opinion that much value is to be attached to it. If, in fact, there was a manuscript of Tacitus in existence there, it has undoubtedly been cut up, and this ends the question."

"If such a manuscript was in existence there?" retorted Felix. "It was in existence. But I have come to request you to show me the parchment leaf. Since the contents have been published there can be no objection to it."

Struvelius looked embarrassed and answered: "I regret that I cannot meet your wishes, which are certainly quite justifiable, but I am no longer in possession of the strip."

"To whom am I to apply?" asked the Professor, surprised.

"Even upon that point I am at present obliged to be silent."

"That is strange," exclaimed Felix; "and forgive me for speaking plainly, it is worse than unfriendly. For be the importance of this fragment great or little, it ought not to be withdrawn from the eyes of others after the publication of its contents. It is incumbent upon you to enable others to prove the correctness of your restoration of the text."

"That I allow," replied Struvelius. "But I am not in a position to enable you to see this strip."

"Have you sufficiently considered," exclaimed the Professor, excitedly, "that by this refusal you expose yourself to the misinterpretation of strangers, to charges which never ought to be brought in contact with your name?"

"I consider myself quite capable of being the guardian of my own good name and must beg of you to leave its care entirely in my hands."

"Then I have nothing further to say to you," replied Felix, and went toward the door.

In going he observed that the middle door opened, and the Professor's wife, alarmed at the loud tones of the speakers, made her appearance like a good spirit, with her hand stretched imploringly toward him. But he, after a hurried salutation, closed the door and went angrily home.

(To be continued.)

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 38. (VOL. II.—12.)

CHICAGO, MAY 17, 1888.

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## TRUSTS AND UNIONS.

BY LYMAN J. GAGE.

Human society is not the result of an invention. It has been a growth, a development, an evolution. The present is the outcome of all the past; it embodies in itself—its customs, ideas and institutions—the result of every influence that has ever operated on man. His appetites, passions, desires, ambitions, aspirations, prejudices and superstitions, have affected the social whole, and have been contributing to and modifying the great stream of human history, and every one of us as individuals and society as a whole, are what we have been made by all the influences of all the past. We can look back, indeed, and discover where ideas first springing up in a single mind have become incorporated in the general thought, have gradually changed the current of the social drift, and finally modified or completely changed social and political institutions. Thus we can read of barbarism with its despotic rule of the tribal chief merged into the fairer form of the feudal system, this in turn slowly developing into a broader state, with the rights of the common people enlarged, though still subjected to kingly rule. At last, after many struggles along a path often marked with blood and tears, we come to the new western world. Here, at last, man stands upright, bathing his forehead in God's free air, the charter of his liberty fully written in the great declaration that all men are born free and equal, and possessed of a common right to life, liberty and the pursuit of happiness.

As man has made progress in this movement towards physical and political freedom, we perceive a like advancement towards intellectual independence. The rising sun of christianity drove back the clouds of pagan superstition, and brought to light the true dignity of man as a moral being, and revealed a nobler Deity. The Reformation broke the power of a dominant religious-political church, disposed to hold in mental subjection those it had made free from the oppressive influence of pagan superstition; and finally modern rationalism has purified the reformation, and promises to free the mind from bondage to spiritual tyranny of every kind.

If it be true that we are what we are by inheritance, rather than by direct creation, we certainly have reason to rejoice in our heritage. Recipients as we are of rich endowments from the past, we find room for their active

use under peculiarly happy circumstances and conditions.

This country in which our fortunes are cast is the fairest on earth. Its great area gives a variety of soil capable of yielding all things necessary to its people. Its climate is so varied that every phase of physical constitution can find an agreeable home. Its wealth of forest is great, and the treasures of mineral wealth beneath the surface are inexhaustible. With a population of sixty millions it is sparsely settled, and will support under good industrial conditions two or three hundred millions in peace and plenty. In addition to all that has gone before, we have the immense power gained in the knowledge of physical science. Steam, electricity, and manifold mechanical inventions have become the willing servants of man.

Concurrently with the development of mechanical inventions, we have witnessed growing economies in the distribution of the products of industry, and a corresponding improvement in the actual and relative reward to the class that the division of labor has developed, known as wage earners. In McMasters' History of the United States, it is stated that in the year 1800 the wages of common labor at Albany, N. Y., were 40 cents, and the hours of work were from sunrise to sunset. Careful statistics compiled for the last twenty-five years show that the wages of skilled and common workmen have both largely advanced, while the purchasing power of their earnings has increased by reason of a lower price for commodities. A common laborer can now buy sixty-six per cent. more of the necessities of life with the earnings of one day than in 1865. Factory operatives, men and women, can buy seventy-eight per cent. more. Common mechanics can buy ninety per cent. more; and men of special skill and aptitude over 100 per cent. more. In other words, the economical value of labor to labor's benefit has increased within twenty-five years by about seventy-five or eighty per cent. It is interesting to note that the accumulation in savings banks, an accumulation due mostly to the industrial classes, is larger than the total deposits of the National banks, though an important per cent. of the latter is also due to the industrial instead of the strictly commercial community.

Surely, if Washington and his fellow founders of the great Republic could return from their long sojourn



in the land of shades; if they could take a hasty glance over this broad land, and see its people increased from four to sixty millions, on every hand peaceful homes, smiling villages, or magnificent cities, all as yet bound together by the political fabric of the early constitution, how would they exult and rejoice. In imagination, we can hear them say:

"We builded indeed better than we knew; but we are the more fully justified in having staked everything on this great experiment. It was to secure this that we put our lives in peril, and what was harder still, we braved the opinion of a world where hereditary rule and aristocratic privilege held full sway. Here exists, indeed, in full power, the peer of any nation, the ideal state of which we dreamed. Man free; the maker of his own destiny; no repressive laws to paralyze his energies; no mandatory laws to compel his action. Our belief that man, man as an individual, could be trusted to work out for himself the high ends of his being is vindicated. Left free, he has by individual action or by voluntary association created the highways of commerce, explored the mountains, subdued the wilderness, established a broad education, developed science, art and literature. By the force of a natural unfolding, not by governmental dictation, he has diversified his industries to the many forms to which different individuals ally themselves according to impulse, taste and aptitude which lie within themselves. The political constitution we gave them is elastic and flexible; it will answer all future needs because, being made for society, it is responsive to the social will, and by its own terms it may be changed when the majority shall desire. We have thus removed any excuse for internal violence, we have clothed the ballot with the convincing power of the bullet, therefore revolutions are impossible. The minority against the majority are defeated before the strife begins. The present is prosperous, the future is secure. Let us return to the land of rest, from which we gladly came that we might gain this brief glimpse of the fair fruits our eyes have seen."

In this flight of fancy it is indeed a kindness to permit these patriotic fathers, whom we all love and venerate, to return to their well earned rest after this brief review. It would be unkind to detain them here and awaken their anxieties by darker pictures which their brief review did not discover. For there is enough left to have excited them and to give serious concern to us, upon whom the responsibility of the present generation rests, and to whom are committed the things which must shape the future.

In 1877 the first great expression of industrial revolt against established order appeared. Within ten years new conditions seem to have arisen. Labor, dissatisfied with the results of the free operation of

the law of supply and demand, in its effect upon the individual, has become organized. Trades unions have become firmly established. By rules of their own, they endeavor to control the hours of labor, the rates of compensation, and to limit and restrict the number of those who by apprenticeship shall become competitors in the future. These unions now cover nearly every form of mechanical industry.

The Knights of Labor is the name for a larger organization seeking to bring into one great body every form of labor to which the hand and body is applied.

On the other hand, we are now witnessing combinations of employers, especially of those engaged in manufacturing. These combinations are known as "Trusts," and every day brings forth a new combination, though many are so quietly effected, or so artfully concealed, that the fact escapes observation and comment. The aim of the labor organization is to check the depressing influence of wages of individual competition. To secure this end the individual surrenders himself to the organization, obeys its mandates, and accepts as his compensation the rates that the representatives of his organization, by the influence of the combination, may secure. If he asserts his independence, and refuses adhesion, he is kept under the observation of the walking delegate, and should his individual efforts come into competition with, or seem to antagonize the interests of the order, there are means found to reduce him to subjection.

The Trust organizations are the same in spirit. Confined to a limited market, a multiplicity of factories produce beyond the ability of the market to consume. Competition to sell reduces prices, diminishes profits, and threatens ruin to the weakest. The aim of the Trust is to check the depressing influence on profits of individual competition. To secure that end, the individual or corporation surrenders his establishment to the Trust, obeys its mandates, and accepts as his profits the result of the price that the "trust" may be able to secure.

Thus it is apprehended there will soon be brought face to face, like hostile forces, the two great powers—the labor organization, or the employes, overwhelming in the number of their rank and file, and the labor employer—comparatively few in number, but powerful in the advantage of position.

We have said that the aim of the Trusts is to secure higher profits. The method will be naturally in two directions, by reducing cost, and by raising prices. The aim of the labor organization is to raise wages. This method will be in one direction only, and that against the employer; hence the antagonism. Organized into trusts, the employing class can in fact, and perhaps will, yield to the increased exactions of the employes; for enjoying, for a brief period at least, a



practical monopoly in their respective industries; can they not fix the price so as to cover both the increased cost and the increased profit? Indeed, if this scheme of combination, this new and artificial system, were practical, labor organizations ought to hail with satisfaction the creation of the Trust, and for this reason: If the employe were able to enforce his growing exactions against the employer, at the employer's cost, the latter would soon be exhausted, and his industry would cease; but if by trust association the employer can recoup himself upon the community at large, then the labor organization has a larger and more inexhaustible field from which to gather a larger reward, and the employing trust might be its convenient and needful agency. But the trouble is, these artificial systems, if wrongfully used, will break down. Thus used they are against the natural order, and the natural order is more powerful than man's devices.

If these trust organizations, by a materially increased price, secure to themselves a larger return upon capital than its average use in other directions will afford, two reactionary effects will be produced: First: The increased cost of their commodities will operate to reduce the ability of the community to consume, and thus reduce the volume of the output. Next: In a free state like ours, unusual profit in any given direction will attract new capital as surely as effect will follow cause, and through new invasions of capital the monopoly will at last be broken.

The same is substantially true as to the result of labor organization, if it shall operate to secure to its members unusual or extraordinary advantages, whether by money payment or by reduced hours of labor. Take the mason's calling, if you please, and suppose the daily wages of that class were, by a close combination, forced up to ten dollars per day, with a prospect of permanency in the prices, is it not plain that laborers now engaged in agriculture or in other departments of industry would learn that trade? They would learn it if they had to employ teachers, and practice by moonlight in the open fields. Partially or fully taught, the number of masons would soon increase, offer their services independently at reduced rates to secure employment, or else the brotherhood of masons would be obliged to take into their existing organizations these new competitors. The craft would have to take care of the craft, and those employed at the high price would have to divide with the unemployed until a mutual average of return was reached where no newcomers would be tempted into it. While this effect was being felt, another consequence would appear: the increased cost of building would reduce the number of buildings and lessen the demand for mason work; and between these two influences the artificial advantage to the mason trade would disappear.

This illustration may be universally applied. These efforts of labor to secure to itself better rewards have their origin, no doubt, in a true principle—half perceived, it is true—but a principle which has governed, and will always govern in a free State, the rate of wages, namely: The wages of labor will rise and fall as the number of wage-workers increases or diminishes in relation to the existing quantity of capital. If capital increases in a greater ratio than the population, wages will rise. If the population increase in a faster ratio than capital, wages will fall. No combination, nor any number of them, can long resist the silent but irresistible influence of this principle.

If this principle were fully comprehended, it would teach the wage-earner that an increased capital in the country will insure to his and his children's advantage. It will teach us all that marriage too early entered upon, and marriages too prolific, are influences which have always held society down to the minimum of wages and comfort and to the maximum of toil and labor. But the effect of the trade union to raise wages by barring out from the exercise of their natural right a number of the population, so far as it may succeed, will have the effect to utterly degrade that part of the population, which will thus find every door of remunerative employment closed before it. Doomed to a life of enforced idleness, this remnant must be supported. The fund for its support must come out of the annual earnings of productive industry. The suggestion concerning too early and too prolific marriages is by no means a new one. In the trade corporations of the middle ages, at their most vigorous period, their by-laws and regulations were conceived with a vigilant eye to the advantage which the trade derived from limiting competition, and they made it the interest of artisans not to marry until after passing through the stages of apprentice and journeyman, and attaining the rank of master. In Switzerland, the Council of State, in five Cantons, elected by universal suffrage, have passed laws by which all young persons who marry before they prove to a magistrate of their district that they are able to support a family are rendered liable to a heavy fine.

But this new movement of labor combination and capital combination must go on until the experiment has been fully tried and its results practically determined. Repressive legislation ought not to be hastily invoked. Lord Macauley truly said: "There is only one cure for the evils which newly acquired freedom brings, and that cure is freedom."

The labor organizations have in them, it is true, possibilities of great value. By friendly union they strengthen the bond of sympathy which man should everywhere feel towards his fellows; with fraternal union they enable labor to practically test from time



to time the question as to whether labor is really receiving its fair, marketable reward. Employers are never in haste to advance wages, and are perhaps as often reluctant to force them down. The price of labor, like the price of labor products, must be adjusted by what is called the "higgling" of the market. A peaceable strike is a practical test, one that should be made, when made, without passion, and be followed, as all strikes are, by concession from one side to the other, but by concessions which, when made, should cause no humiliation on either side.

The dealer in commodities offers his goods or wares; the market, perhaps, will not take them at his price; he holds off until concession from the would-be seller, or concession from the market is reached, and the trade is accomplished. No stones are thrown, no bad blood is excited. In its economical aspect, the effort of labor to find its highest market price is a transaction not essentially different. There are signs that this view is growing in favor with labor organizations; and with increasing knowledge and a better study of the natural economical conditions which govern the price of labor, as if everything else, many of the evils which might be pointed out as incidental to these organizations will disappear.

The Trust Organizations are not necessarily evil—perhaps not even dangerous. They may, in fact, if wisely conducted, be productive of good. Economy in the use of capital, efficiency in methods and administration, increases production, reduces cost and gives room for higher wages to the operative whose labor is thus increased in efficiency. These results may be best secured through combinations, whether of individuals or corporations. It is quite certain I think that in this direction only will the co-operative movement known as trusts have an enduring history. If they *do* accomplish these results they ought to and will survive.

Every generation has its especial problems to solve, and its own difficulties to encounter. Our problems and difficulties seem largely related to social and industrial economics. With an advancing civilization the age has become more humane. Extremes of poverty and distress which in a coarser age were scarcely noticed, now pain the heart. The structure of society which can show such disparity between the condition of the very rich and condition of the very poor is boldly challenged—nay more, it is vehemently denounced as being radically bad in its fundamental principles. Such writers as Owen, St. Simon, Louis Blanc, Fourier and others, have formed mental conceptions of a social state which should be free from the poverty and wretchedness which, like dark spectres, have haunted civilization from its earliest beginning to the present time. The thoughts and ideas

advanced by these teachers, men of learning and philanthropy, have taken hold of many minds; and in various forms, but under the general name of socialism, efforts are made to bring these individual conceptions into some form of practical realization.

I shall not attempt to debate the merits or demerits of the new and untried theories, but I cannot forbear to quote the careful and considerate words of one who is often named as favorable to socialistic ideas. He says: "We must suppose two conditions realized without which neither communism nor any other laws or institutions could make the condition of the mass of mankind other than degraded and miserable. One of these conditions is universal education; the other a due limitation of the numbers of the community. With these conditions realized, there could be no real poverty under the present social institutions; and these being supposed, the question of socialism is not as generally stated by socialists, a question of flying to the sole refuge against the evils which now bear down humanity, but a mere question of comparative advantages. We are too ignorant either of what individual agency in its best form, or socialism in its best, can accomplish, to be qualified to decide which of the two will be the ultimate form of human society. But it is not by comparison with the present bad state of society that the claims of communism can be estimated; nor is it sufficient that it should promise greater personal and mental freedom than is now enjoyed by those who have not enough of either to deserve the name. The question is, whether there would be any asylum left for individuality of character; whether public opinion would not be a tyrannical yoke; whether the absolute dependence of each on all, and surveillance of each by all, would not bring all down into a tame uniformity of thoughts, feelings and actions. This is already one of the glaring evils of the existing state of society, notwithstanding a much greater diversity of education and pursuits, and a much less absolute dependence of the individual on the mass, than could exist in the communistic regime. It is yet to be ascertained whether the communistic scheme would be consistent with that multiform development of human nature, those manifold unlikenesses, that diversity of tastes and talents, and variety of intellectual points of view, which not only form a great part of the interest of human life, but by bringing intellects into a stimulating collision, and by presenting to each innumerable notions that he would not have conceived of himself, are the mainspring of mental and moral progression."

The truth is, society has advanced but half way along the high course which a practical idealism sees possible to it. The forces of nature are fairly comprehended, and by putting his mechanical appliances



in the line of their action, the power of man has been indefinitely multiplied. Steam and electricity do his bidding. The winds carry his ships; and even the rising and falling tides turn the wheels of his ponderous engines. Having secured a large dominion over nature; having learned the secrets of the stars, and found the mysterious orbit of his earth, he must now turn his thoughts and his study to that organism we call society. He has now to learn the more subtle laws which affect man in his industrial and social conditions and history, and to these few inexorable laws society in all its members must learn a willing obedience.

The ingenuity of the past has been taxed in the effort to discover and apply adequate punishment for crime. The study of the future will be the prevention of crime. There have long been efforts made to ameliorate the sufferings of pauperism: we ought to learn—we shall finally learn—to change the conditions by which absolute poverty or complete pauperism exist. Proof enough exists for our present low state in the fact that an average of four or five thousand men in the State of Illinois are inmates of jails and penitentiaries,—in the fact that in a city like Chicago, where only two millions per annum are expended in public education, twenty millions or more are expended for beer,—in the fact that masses of man roam our streets in vain quest of remunerative and steady employment. Unskilled in handicraft, and enfeebled too often by the destructive effect of drink, their value to society is but small; and they hang upon its skirts, begging for help, while they sink into unknown and unhonored graves. The hopeful sign of the present, and the best promise for the future lie in the fact that society is becoming awake with redemptive zeal.

One society in New York within thirty-five years has taken more than eighty thousand children from conditions which condemned them naturally to ignorance, poverty and possible crime, and placed them in good homes throughout the land, where they have grown or are growing up, under conditions favorable to virtue and intelligence, and to a life of usefulness and honor. The annual receipts of that society have steadily increased from about four thousand dollars in 1853 to more than three hundred and fifty thousand dollars in 1887. This society runs twenty-one day and fourteen evening schools, where 10,827 children of misfortune are taught and partly fed and clothed.

Does not the operation of this society and others of similar aim have something to do with the following results: In 1859 the commitments for female vagrancy in the City of New York was 5,778. To have maintained a similar ratio to population, the number of commitments in 1886 for the like offense, should have been a little over ten thousand—but the number was only 2,418, or less than half the number of 1859.

In 1875 the arrests for drunkenness among males was 24,786; in 1886 the number was 12,500.

I cite these facts as encouraging evidence of the propositions, first: That the more degraded part of the population are slowly learning the difficult duty of self-restraint, and, second: That the more enlightened and prosperous classes are apprehending more clearly their responsibility to their feeble brethren. To the honorable and right-minded socialist we must, perhaps, accord the strongest conception of the solidarity of society, but the believer in the rule of individual free agency, he who opposes with all his power the prescriptions of socialism, he also is beginning to comprehend that in the web of social life his own happiness is inextricably involved in the welfare of his fellow man; he is apprehending a great, a divine truth—that outside of himself there is a larger self-humanity; that in the exclusive service of his narrower self he is leading a life too restricted for his highest happiness.

In the development of two principles, self restraint and self control in the individual, and a broader humaneness, a more generous sympathy prevailing society, lies the hope of the future. Whether socialism or communism is to be the final and distant destiny of society, or whether it is to go on forever under the influence of individual agency, we need not be over anxious to know. It will develop according to the law of its inherent tendencies, modified by the ideas and influences of the present and of new generations. Man, the individual, dies. If he lives only to himself he soon passes away, and nothing of him remains upon earth. If with high ideals and pure sympathies he lives for society, by so much he pours his being into an urn that will never be broken. Society is immortal.

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M. D.

Part VII.

#### DIET.—CONTINUED.

It would be difficult to name a single moral or mental emotion that cannot be stimulated (or *simulated*, as a certain school of moralists would prefer to express it) by the purely physical agency of tonic drugs. Thus, a penchant for *mysticism*, a propensity that has played no small part in the propagation of religious dogmas—can be excited by an over-dose of *belladonna*. The patient's eyes stare with dilated pupils, while the brain becomes crowded with curious visions, connecting every trifling phenomenon with a transcendental significance. Spirit-hands beckon from the branches of a swaying tree; the clouds frown portentously; the voice of the nightwind whispers weird secrets; the soul seems to listen for supernatural rev-

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elations and derives inspiration from incidents as prosaic as that flash of sunlight reflected from the burnished surface of a wash-basin, that filled the heart of Jacob Boehme with a "beatitude born of spheres beyond our own."

A small dose of *chloral* will cure pessimism as promptly as it relieves the physical symptoms of certain nervous disorders. The mind seems incapable of dwelling on the gloomy aspects of life, and expands desires into hopes, and hopes into exultant foretastes of enjoyment. A diluted preparation of hasheesh will produce a similar effect.

"It is real happiness," says Dr. T. C. Moreau (*Etudes Psychologiques*, p. 54), "which characterizes the first effect of hasheesh, and by this I understand an enjoyment entirely moral, and by no means sensual, as one might be led to suppose. This is certainly a very curious circumstance, and some remarkable inferences might be drawn from its significance; this for example, that every feeling of gladness and gratification, even when its causes are purely moral,—that those joys which are least associated with material objects, the most spiritual, the most ideal,—may, after all, be nothing else than sensations wholly physical, developed in the interior of the organism, as are those produced by the hasheesh. At least, as far as concerning anything of which we are internally conscious, there is no distinction between these two orders of sensation, in spite of the diversity in the causes to which they are due; for the hasheesh-eater is happy, not as the gourmand, not as the libertine in gratifying his sensual desires, but like him who receives tidings of great joy, like the miser counting his treasures, the gambler in a flush of good luck, or the ambitious man intoxicated with success."

In larger doses the same drug stimulates the amatory passion and combativeness; while its after-effects are attended with gloomy forebodings, bordering on that monomania of dread which sometimes torments lunatics with hallucinations of pursuing demons or lurking assassins.

The despondency of alcohol drinkers, too, is apt to assume the form of absolute life-weariness. The gloomy reveries of mediæval fanatics, their dread of tempting fiends, their broodings over the horrors of future retribution, may be partly explained by the habits of an age that combined spiritual tyranny with the utmost license of spirituous indulgence. Not more than a generation ago the Protestant countries of Christendom, too, abounded with morbid moralists who vented their alcohol-spleen in fierce pulpit diatribes and dire predictions of retributive calamities. The suspicious temper of confirmed drunkards is as apt to eventuate in deeds of violence as their despondency is prone to temptations of suicide. Dr. W. B.

Carpenter mentions the case of a sea-captain, who "having been seized with the belief that his crew was in a state of mutiny, killed one of them after another, in (as he believed) rightful self-defense." Dean Swift, who tried to relieve (but probably aggravated) his chronic headaches with alcoholic stimulants, suspected every strange visitor of hostile intents, and often accused his best friends of "conspiring for his ruin." This diseased imagination exaggerated inadvertant slights into deliberate insults, and his self-written epitaph expresses his almost impatient longing for the peace of that last resting-place, "*ubi sæva indignatio cor ulterius lacerari non potest*"—"where fierce resentment will no longer rend my heart." Yet, the fact is, that the causes of that "resentment" were chiefly chemical. Instead of conspiring for his ruin, his friends did all they could to condone his faults, and his most unclerical escapades were forgiven so often, that his superiors at last incurred the reproach of undue partiality, or of a purillanimous dread of incurring the enmity of the virulent satirist.

The sufferings of the opium-fever, on the other hand, consist in an abnormal sensibility of the whole emotional organism. The mind does not exclusively dwell on gloomy fancies, but wanders from vision to vision, from abysses of darkness to scenes of bewildering splendor. "All sorts of vivid thoughts," says De Quincy, "were apt to transfer themselves to my dreams, till I almost feared to exercise this faculty; for, as Midas turned all things to gold, that yet baffled his hopes and defrauded his human desires, so, whatsoever things capable of being visually represented, I did but think of in the darkness, immediately shaped themselves into phantoms of the eye; and by a process apparently not less inevitable, when thus once traced in visionary colors, like writings in sympathetic ink, they were drawn out by the fierce chemistry of my dreams into insufferable splendors that fretted my heart. . . . I sometimes seemed to descend, not metaphorically, but literally, into chasms and sunless abysses, depths below depths, from which it seemed hopeless that I should ever re-ascend. The sense of Space, and in the end the sense of Time, were both powerfully affected. Buildings, landscapes, etc., were exhibited in proportions so vast as the bodily eye is not fitted to receive. Space swelled, and was amplified to an extent of unutterable infinity. This, however, did not disturb me so much as the vast expansion of Time; I sometimes seemed to have lived for 70 or 100 years in one night; nay, sometimes had feelings representative of a millenium passed in that time, or, however, of a duration far beyond the limits of human experience. The minutest incidents of childhood, or forgotten scenes of later years, were often revived; for I could not be said to recollect them.



If I had been told of them when waking, I should not have been able to acknowledge them as part of my past experience, but placed, as they were, before me, in dreams, like intuitions, and clothed in all their evanescent circumstances and accompanying feelings, I recognized them instantly."

Tartars, under the influence of koumiss (fermented mare's milk), become absurdly garrulous. A stern, old chieftain will unbosom himself to his groom, detailing his financial projects or the record of his gallantries, or assemble his companions under the impulse of an irresistible hankering for a display of oratorical talents.

Arsenic-eaters become introspective, preferring their silent reveries to the most entertaining conversation; *coca* (a Peruvian tonic) beguiles the hunger of the poor Sierra Indians with visions of luxurious feasts; and Dr. Laycock (*Mind and Brain*, vol. I, p. 422) mentions *phantasmagorias of harmony* among the curious effects of a dose of *aconite*. "On a certain night," he says, "when a sufferer from severe pain and great weakness, the writer took one drop of Fleming's tincture of *aconite*, and slept. About midnight he became sensible of a novel state of perception, obscure at first, but shaped at last into strains of grand ærial music, in cadences of exquisite harmony, now dying away round mountains in infinite perspective, now pealing along ocean-like valleys. Knowing by previous experience that it must be a hallucination, he at last listened to ascertain the cause, and found it was the rattle of a midnight train entering an adjoining railway station. Thus, under changes induced in the Brain, by a drop of a tonic tincture, the harsh rattle of the iron vibrating on the air in the silence of a summer night was changed into harplike ærial music, such not only as 'ear had not heard,' but no conceivable art of man could realize. Associated therewith was also a suggested terrestrial vision of space of infinite extent and grandeur."

A decoction of the common fly-toadstool (used for intoxicating purposes by the natives of Kamtschatka) affects both the memory and the sense of space. In his delirium, the toper will repeat the same anecdote till the impatience of his hearers explodes in an emphatic protest against further rehearsals, and in trying to cross a tiny rill, he will often take a leap sufficient to clear a goodsized brook.

Wrath, love, fear, fancy, wonder, sadness and self-esteem, can all be stimulated by the influence of as many different drugs. It would, indeed, be no exaggeration to say that by changes of diet and the skillful use of chemicals a moral experimenter can play on the emotions of the human soul, as a skillful performer would manipulate the key-board of a musical instrument.

#### PROFESSOR L. BUCHNER ON RELIGION.

Prof. L. Büchner, the well-known author of "Force and Matter," has recently published a pamphlet,\* "*Ueber Religiöse und Wissenschaftliche Weltanschauung*," in which he denounces religion as being a belief in a supernatural world.

Prof. Büchner is quite justified in so severely criticising religion, if the word has to be accepted as he defines it, "superstition or worship of a supernatural deity." He has stated, however, on page 8 of his pamphlet, that, in his polemical treatment of religious cosmic conceptions, he has reference to the construction of the word "religious" as based upon ecclesiastical and denominational principles only, and in a private letter he gives us his opinion of our view as follows: "In the main I quite agree with your views upon the subject, and have no objection, furthermore, to your retaining the word 'religion' in the corrected sense in which you have conceived it; although the distasteful notion incidentally attached to the word may indeed restrain many from indorsing your opinions. A further dubious circumstance is the limitless confusion of ideas connected with the word 'religion.' You will find enclosed a short essay of mine upon the meaning of the word, which was the occasion of a number of articles upon the subject in '*Menschenhum*' and other free-thought journals; yet we were unable to come to any agreement. The views expressed stand in marked opposition to each other, although the whole controversy is at bottom but a verbal one, and everything depends upon what we propose to understand or not understand by the word religion. Yet you may see, by the passage italicised in my essay, that I, for my part, have no objection to offer against the further use of the word in the free-thought acceptance."

"If I may be allowed to take exception here to your definition, it will be that I deem it too indefinite and not sufficiently realistic. The 'All' is a notion entirely too indefinite, a thing which we know but very imperfectly and only in portions, and behind which all manner of other things may lie concealed. As for the rest I fully agree with you, when you characterize your move as a religion of humanity. The '*Allgefühl im Einzelnen*' referred to humanity, the '*Leben für die Gesamtheit*' (living for the entirety) is indeed a beautiful, a truly socialistic idea, which I assent to with all my heart.†"

The passage to which Prof. Büchner alludes, reads as follows: "Opposed to the belief in the supernatural stands, of course, the belief in the natural: the belief that everything in the world has, does and will happen

\*This pamphlet was reviewed in THE OPEN COURT of October 13, 1887, p. 503, by Mr. Fred. May Holland.

†Prof. Büchner refers to the definition of religion given in my contribution to the "Freidenker." The "*Allgefühl im Einzelnen*" is untranslatable as a definition. The literal rendering, the "All-feeling in the (individual)," does not accord with the English idiom. The idea, however, is given at length in the closing paragraph of this article.



conformably to the everlasting and immutable laws of nature, in accordance with the law of cause and effect, and without the possibility of a personal interference. This is the belief, or—to take the word in its broadest meaning—the religion of the free-thinker. *For the free-thinker, too, has a religion, or can have one, if he understands by that word the belief in the happiness, weal and progress of the human race on earth. In a certain sense this belief also is 'supernatural,' for it extends beyond the natural condition of man, and exalts him to a sphere which conforms to laws of higher—even if self-created—potentiality. The difference between the 'supernatural' of those who confess God and religion and the 'supernatural' of the free-thinker rests solely in the fact that the one searches for it above and the other beneath the clouds.*

"In this sense the definition named would be applicable to a religion which had no truly religious conceptions, or to a general belief in the ultimate triumph of the true, the good and the just, and it would thereby meet the demands of those who fancy they possess religion without theistical admixture, or who find their confession of faith in Schiller's famous saying:

"Which religion I have? There is none of all you may mention Which I embrace; and the cause? Truly, religion it is!"

In all main points Prof. Büchner agrees with our standpoint; his only objection is that the expression, the All, is, according to his idea, too vague; he prefers to restrict religion to man's duties and relations to mankind. We do not question that the duties toward humanity are the most important and most difficult of religious relations; yet they do not include all. Man's relation to the animal kingdom, and even to the inanimate world, also implies moral duties.

Felix L. Oswald inculcates this truth in his essays, and he proves beyond the possibility of a doubt how it is that man's conduct in relation to surrounding nature, his eating and drinking, his taking exercise, etc., must also be regulated according to moral principles, all of which must be included in a monistic religion. The monistic religion, we confidently believe, will prove to be a "humanitarian religion" and the "religion of humanity"; but we expressly state that this name must not be considered as limiting religion to the relations between man and man. All actions of man have a moral import, and therefore his religion must comprehend all his relations. In order to cover the whole field of man's duties, the definition of religion must be as broad as possible, and therefore the expression "the All" seems to us more appropriate than any other term. It is the most general term, yet not vaguer or more indefinite than any other word which could perhaps be substituted. It is at the same time signally realistic—as realistic, at least, as any name. It includes not only what we know of nature at present, but whatever

acquisition or eventual increase of our knowledge we can attain.

With regard to Prof. Büchner's expression that the religion of the free-thinkers is "the belief in the happiness, weal and progress of the human race on earth," we have to offer two objections: First, "happiness" denotes a state of mind which is too subjective and indefinite to be of any use for a definition. The happiness of an immoral man is different from the happiness of a moral man; and under certain conditions it is possible that the very unhappiness of both will contribute to their weal and progress. Unhappiness will benefit the moral man, and may mend even a bad man; happiness, on the other hand, is dangerous and objectionable as soon as it comes in conflict with the weal and progress of ourselves as well as that of the human race. We would accordingly suggest that the word happiness be canceled altogether in the passage quoted.

Our second objection refers to the word belief. According to our view religion is independent of belief—it is a fact of human nature. The naturalist knows that everything stands in some relation to everything else in the world. The whole universe does not consist of single things disconnected, but forms a great unity, and there is no atom that does not conform to this universal law of mutual relation; no particle of dust exists that does not gravitate toward other masses according to its weight. The relations of animals to the universe are infinitely more complicated than the relations of inorganic matter, and the relations of man to his surroundings grow in import as he becomes conscious of them. Man by dint of his thinking and reasoning power is enabled to judge better of, and understands that his actions must be regulated by, these relations.

The scientist inquires into the phenomena of nature, but in his observations he does not take into consideration that he himself is personally concerned in the life of nature. Science is objective. But when man considers himself a part of the whole natural world, when he comprehends that his actions have an effect upon his surroundings and react upon himself and his fellow-beings, when in consequence thereof he feels himself responsible for his conduct, when he knows that his conduct is to be regulated, not at his pleasure, but according to his relations to the All, he is religious. Religion is subjective.

Science and religion both embrace the whole field of nature and natural life. Science and religion never cease to influence each other, and the progress of the one promotes the progress of the other. No science without religion. The greatest discoveries have been made by men of deep religious feeling, by earnest lovers of truth, by men who did not live for themselves, but for truth and for the discovery of truth, viz.: science.



But we say also, no religion without science. Religious belief rests on certain scientific notions.

Science is a fact of human nature, and so is religion. Wrong notions do not annihilate science, nor do superstitions destroy religion. The prevalence of errors does not prove the non-existence of either religion or science. Truth will remain truth, even if obscured by misconception. Accordingly, we do not demand the extermination but work for the purification of religion as well as science.

There is dogmatism in religion as well as in science, and there is agnosticism in religion as well as in science. But there is also an undoubted progress in religion as well as in science, and this progress is effected by a constant struggle against the two extremes, dogmatism and agnosticism.

Accordingly, we define religion as man's consciousness and clear conception of his relations to the All, which includes his duties to humanity, his duties to his lower fellow-creatures, and his whole conduct in every respect.

## CORRESPONDENCE.

### MATTHEW ARNOLD'S CRITICISM.

To the Editor of THE OPEN COURT:

DEAR SIR:—It is freely said that the death of Matthew Arnold was untimely because it came when the Americans were smarting under the sting of his recent criticism on their institutions, and especially on their press. Therefore in their anger they would fail to be as generous to his memory as they would have been if that criticism had not been written, or if it had been written long ago. I am not of that opinion. His death was not untimely if the shock of it serves to direct the American conscience to the criticism itself. The American editors as a class were hurt by the truth of it, and because they knew that it was true, and especially because they knew that it came from a just man and a sincere friend of the American government and the American people.

It is National wisdom to heed well the criticism that comes from other nations; to study it and learn it like a lesson. Self-glorification is very often a substitute for self-respect; and mob-orators and mob-newspapers have weakened the American character by a constant repetition of boast and bombast to the effect that everything here is better than it is elsewhere. Three hundred and sixty-five days Fourth-of-Julying in one year is tiresome, and the practice of it renders a people insensible to their own imperfections and hinders their improvement. Why improve that which is already perfect?

A warning that will last for a century or two was given to the world in 1870. For many years the French had been convinced that they were *La Grande Nation*; that they were superior to every other people in the world, and especially to the Germans. Their orators told them so; their newspapers told them so. Criticism was resisted, not heeded.

The Germans, on the other hand, were doubtful about their own perfections, and when the critics ridiculed their clumsy tactics both in peace and war, they shrewdly thought that perhaps the critics might be right. So they learned the criticisms all by heart, and tested them. They treated every criticism as a hint, and improved upon it. They never said that they were ready, but they kept on getting ready. Whether their critics were friendly or

hostile, the Germans regarded them as teachers, and studied hard. The result is known.

Germany is far ahead of her great rival, not only in the science and practice of war but in all the arts and qualities of peace.

In literature the Germans, conscious of their own deficiencies, heeded well the advice and warning of all their critics, and studied every example. Every foreign book of any value at all was translated into the German language, and made an exercise for the German intellect. Shakespeare and Milton influenced German literary development more than they influenced the literary character of England. The Germans analyzed and compared the teachings of all nations, and this practice did not weaken Germany but strengthened her until at last she produced poets of her own worthy to stand on the plane of Milton and of Shakespeare. As it was in poetry so it was in other fields of literature, in all the varied branches of art, science and philosophy.

The United States is great by reason of its natural resources. No other nation in the world has ever been so favored. The extent and fertility of its soil, the variety of its climate, the cheapness of its land, its mineral wealth, its facilities for internal commerce and manufactures, its absolute security from foreign invasion, and its free institutions promise a national development unparalleled in the history of the world; but unless the people come under moral discipline what availeth it? Their greatness will be material and coarse. If self-conceit refuse counsel and resent criticism; if the Americans think they have nothing to learn from other people, they will become a purely selfish race, morally and mentally below their material rank in the world.

It will honor us more to heed the censure of Matthew Arnold than to fretfully complain of it. Let us try to remove the reproach and not cling to it in our pride.

Yours truly,

M. T.

### MONISM AND HENISM.

To the Editor of THE OPEN COURT:

Your editorial in No. 35 entitled "Idealism, Realism and Monism," is an able explanation of a very difficult problem. Your Monism is a union of Idealism and Realism, to the exclusion of their extremes Spiritualism and Materialism, but does the name "Monism" sufficiently designate your meaning? I find that all the different systems of philosophy now claim a monistic basis; the materialists call themselves monists and even ultra-spiritualists do likewise (*Du Prel: Die monistische Seelenlehre*).

Is it advisable to use a word that does service for such different masters?

C. T. S.

[The word Monism expresses the ideal of a unitary conception of the universe. The term does service to many different masters, to materialists as well as spiritualists, because all of them acknowledge that a philosophic system must be unitary; it must agree with all facts and must be free from contradiction; one truth cannot contradict another truth.]

This seems very simple and self-evident, but it was not so to the people of the middle ages who declared e. g. that what is untenable in theology may be true in philosophy.

The unitary ideal of our philosophy is a recent acquisition and the term monism is its most exact expression. The spiritualists and the materialists reduce all phenomena to one principle, to spirit or to matter, without taking into consideration that both exist. Their unitary view has been obtained by elimination of one important factor, of reality. Accordingly their view may be free from self-contradiction—subjectively it may be a unitary view, but not objectively; it does not agree with all facts. This is *one-sidedness* but no *monism*; and I propose to call such systematized philosophic one-sidedness *henism* (see OPEN COURT No. 8, p. 210).

Time will tell whether our view is true Monism, and whether the materialist's and spiritualist's claims to a monistic conception



are tenable. We do not object to their using the term, even if their views must be classed under henism. The term monism might serve them as a guide-post which, it is to be hoped, will lead them on the right road to a truly unitary conception of the world.

We do not fight about words, but we work for ideas; however, we know that the proper usage of words is indispensable for a correct understanding of ideas. EDITOR.]

## BOOK REVIEWS.

THE NEW STATEMENT. Published by H. R. Burdick, Malder, Mass., 1888.

This little pamphlet which was recently received at our office, is an odd mixture of the simple truths of Monism, and the phantastic ideas of a spiritualistic tendency. The first chapter contains the following statements:

All that exists is *one*. There is no other. All individualities are but parts of this one all-including being.

To designate this one, that includes all, and transcends all, man has no fitter term than the name *God*.

All truth is God's truth, for all reality is in God, and all true knowledge is knowledge of God.

All that can be known of the unknown must be learned through the known.

Know thyself! and thou shalt know all thou canst know of God.

Faith assures us that what is true of a part must be in harmony with the truth of the whole, though it may not be the whole truth.

Wisdom in man can only result from a knowledge of himself and his relation to the universe, the all, or God.

The highest exercise of faith is the realization that all things are one; that all variety exists in unity, and that the greatest good is harmony, because harmony is the law of God.

All things being in, and of God, it is obvious that all are related.

Nothing exists by and for itself independent of the whole.

The end, purpose and perfection of all existence is the maintenance of a right or harmonious relation of the various parts to each other, and to the whole or God.

So far we can agree. But we must protest when the anonymous author makes "thought the only motive power in the universe," and deduces from this axiom that true knowledge creates "spiritual, mental and bodily health," and that "the final outcome of knowledge is the annihilation of death."

SUBSTANCE AND SHOW. Thomas Starr King. Edited, with an Introduction, by E. P. Whipple. Boston: Houghton, Mifflin & Co.

We have here a series of twelve discourses, lectures and sermons, delivered by one of the most eloquent speakers of modern times.

Thomas Starr King is remembered in this later day by the general public chiefly for his oratorical power and brilliancy, but the volume of essays before us shows that he deserves to be remembered as a thinker, and close reasoner as well. His editor, Mr. Whipple, says in his very interesting preface, that "Mr. King became a force in the lecture-room, as he became a force in the pulpit by the happy union in his nature of brilliancy of talent with beneficence of character." He compares him with Theodore Parker, both of whom labored "to make the lecture-room a place where both independence of opinion and peculiarity of character could be freely expressed." The first essay in the book is the famous lecture on "Substance and Show," and is a plea for the spiritual interpretation of the universe based on known scientific law. "We talk of the world of matter, but there is no such world. Everything about us is a mixture or marriage of matter

and spirit.—Organization meets us at every step—and organization implies spirit." The essay on Socrates is a valuable contribution to the many aids we have to the study of Greek literature, profoundly philosophical, at the same time that it is clear and entertaining in style. We gladly commend this volume of posthumous essays, so strangely late in its appearance before the public. There is substance for thought and reflection on every page, and the high cheer and courage, which run throughout the book, affect the reader like a spiritual tonic.

C. F. W.

HEARTSEASE AND RUE. James Russell Lowell. Boston: Houghton, Mifflin & Co.

We have learned to take up a new volume of poems by an old and loved poet, of well established fame, with a little feeling of dread, as seldom do the later works of any author equal the expectations aroused in our first delighted reading of his earlier works. But we are glad to admit a disappointment of a more pleasant order in Mr. Lowell's latest volume. As its title implies, it is a collection of verses of both a happy and sorrowful order. The volume opens with a fine poetical tribute to Agassiz, written just after the great naturalist's death. Agassiz's great-hearted, joyous nature is admirably described in the lines,

"He, that was friends with earth and all her sweet  
Took with both hands unsparringly."

Among the other long poems is a tribute to Geo. Wm. Curtis, which, we confess, we care less for. The poem, entitled "Endymion," and further described as "a mystical comment on Titian's 'Sacred and Profane Love,'" contains many beautiful lines, and is infused with a noble conception of love. Among the humorous poems we find "Credidimus Jovem Regnare," a rhymed dissertation on certain thought-problems of the day, written in a mildly satirical view, which appeared soon after the poet's return from England, and excited some unfavorable comment from the severe moralists, disposed to interpret every line in its bare literalness, to see in it only an implied censure of an age devoted to the scientific and practical. That Mr. Lowell has no great fear of the destructive effects of science upon poetry, and the ideal life, may be gathered from the sonnet, "Science and poetry," which we should like to quote entire, did space permit; but which does not divide itself easily, even for the quotation of a line.

C. F. W.

The *Art Amateur* comes punctually for May with its many notices of Spring Exhibitions and sales of paintings. Montezuma tells anecdotes of trickery in sales with a boldness in naming both dealers and victims which certainly argues courage and independence on his part. He may do real service to artists and amateurs by giving unprejudiced and reliable information on points of law and custom in picture sales—indicating the methods of honest as well as dishonest dealers. An interesting paragraph tells of the opportunities open to an intelligent bric-a-brac collector in New York. One who really knows a good thing when he sees it and dares trust his own judgment may sometimes make a bargain which pleases both sides, but an inexperienced amateur had better trust to the integrity of a well known dealer.

Greta's letter from Boston is more interesting than usual, for she gives some account, I wish it were fuller, of the designs for the new public library, which is a very important work. It is highly desirable that criticism upon it should be as much as possible preceded rather than follow its erection.

The notice of Rembrandt's Etchings at the gallery of Wunderlich & Co. is very interesting and is illustrated by fac-similes of very fine work. It is sad to think how few have time to give due study to such work, but when we consider the years and centuries during which a real masterpiece is loved and studied, though only by the few, we do not feel that the master's efforts are lost, and his influence is sifted through the few and reaches the many who



often do not know the source from which it comes. Henry Bacon's sketch of "Mending the Net" is pleasing and suggestive, although the figures and faces seem rather conventional than full of the rough freedom of fish-women's life. Elizabeth Strong's sketch of "The Poachers" makes the canine culprits very thoughtful and intent, but I very much fear if they could speak, they would say "Ha! I would do it again."

The colored plate is a very clever imitation of oil-painting and is truly named "The Laughing Man," but a more commonplace and interesting subject it would be hard to find except in the barbers' shops.

Many good hints to young artists and teachers make the number valuable, and I would specially call attention to the Amateur Photographic Exhibition to be held in Boston May, 7th to 12th.

A great deal of good work is done by Amateurs, and in their free range of subjects they preserve many effects and peculiarities which are well worthy of study.

Decorative art receives due attention; the design of fringed gentians will attract by its naturalness and the fish plate is very delicate and pretty.

"Mind" for April contains its usual variety of exceptionally able and important essays and criticisms of recent thought on diverse phases of mental science. The first essay is "On the Conditions of a True Philosophy," by Shadworth H. Hodgson; S. Bryant, D. S., treats of the Nature and Functions of a Complete Symbolic Language; Rev. H. Bushdall on "Dr. Martineau and the Theory of Vocation," and H. F. Shand on "The Unity of Consciousness." The discussions are on the "Hallucinations of Memory and 'Telepathy,'" by Prof. J. Boyce; and on "Feeling as Indifference," by J. Sully and F. H. Mason. The Critical Notices are H. Seth's "Hegelianism and Personality," by D. G. Ritchie; C. Mercier's "The Nervous System and the Mind," by T. Whitaker; J. Venn's "Logic of Chance," by W. E. Johnson; and C. Sigwart's "Vorfragen der Ethik," by Prof. W. B. Sorley. There is a very full list of notices of New Books bearing on Mental Science, English and Foreign, and Notes on Dr. Cabbett's "Elements of Physiological Psychology," by Prof. G. T. Ladd; and on Leibnitz and Hobbes by the Editor, etc., etc.

"Science" of May 4th speaks of the chair of 'experimental and comparative' psychology at the Collège de France as follows:

"The French educational world is discussing with interest a recent innovation at the Collège de France, to which we have already referred in *Science*. That institution, ranking as the representative of the higher education, and having connected with it some of France's most eminent scholars, has converted a chair at the college into a chair of 'experimental and comparative psychology.' This is a very high tribute to the new psychology, and this illustrious example will, it is hoped, induce other institutions to take a similar step. M. Paul Janet contributes an extensive article in the *Revue des Deux Mondes*, outlining the interests which the new professorship is to represent, and defending it against certain misrepresentations to which it has been laid open. The occupant of the new professorship is Th. Ribot, whose name is well known to English readers, and all of whose works have been translated and editions published in America. His three monographs—upon the 'Diseases of Memory,' the 'Diseases of the Will,' and the 'Diseases of Personality'—are most admirable introductions into the studies with which they are concerned. His work upon the psychological aspects of heredity is of standard value, and his compilations of the systems of English psychologists and of German psychologists are hardly less serviceable. M. Ribot will in his new sphere be able to still further widen his useful influence by imparting to young men the same enthusiasm and liberality of thought which he has shown in his works, and nowhere more than in his able editorship of the *Revue Philo-*

*sophique*, whose founder he is. The opening address of his course Professor Ribot (*Revue Scientifique*, April 11, 1883) devoted to a brief survey of psychological work in Europe and America. He finds everywhere encouraging examples of good work by scientific methods, and draws a very hopeful picture of the strides that this young science seems destined to make in the near future. The step that the Collège de France has thus taken is an indication of the *raison d'être* which scientific psychology has already proved for itself; and a similar form is doubtless to take place elsewhere. It is gratifying to add that the educational institutions of this country are beginning to realize the propriety of such a step, and of having a representative of the new psychology in their faculties."

## NOTES.

The greatest evil of poverty, Mr. W. M. Salter says, is that taking men as a class, it gives them no chance for the higher, moral life.

Matthew Arnold's view of the relation between "Science and Religion" may be found in his Bede Lecture at Cambridge, given under that title.

Mr. Richard A. Proctor, whose name is familiar to our readers, some time ago came near being shot by a demented person at a New York hotel.

The Concord Summer School of Philosophy, owing to the death of Mr. Alcott and the absence of Dr. Harris, will hold no session this summer.

Mrs. Humphrey Ward's "Robert Elsmere," the greatest religious novel of many years, preaches the religion of humanity. It has had the honor of a review from Mr. Gladstone.

An exchange tells of a little boy who, when asked why he had been bad during the day, answered that he wasn't sure, but he asked God to help him that morning, and he thought that perhaps God had not tried hard enough.

Dr. O. Pfeleiderer's great work on "The Philosophy of Religion" has had the good fortune to find an able English translator in Mr. Allan Menzies. The second volume, concluding the historical part, has lately appeared.

A gentleman who recently visited Herbert Spencer, tells us that he quoted Mark Twain, and that his conversational manner is light. The great dualistic philosopher has the air of one inhabiting a serene region, far above the turmoils of life.

A gentleman who was acquainted with Matthew Arnold, says that he had an almost boyish kindness and freshness of temperament, and this notwithstanding frequent terrible pain from the disease, neuralgia of the heart, that caused his sudden death.

Mr. Moncure D. Conway, who is fifty-six years old, began his religious career in a settlement of Quakers, whom he left to become first a Methodist, then a Unitarian, and finally a free-religion minister. During the war he helped his father's slaves to escape and settle in Ohio.

By the resignation of Prof. Stanley Hall, Johns Hopkins loses the leading American psychologist, just as a splendid laboratory of experimental psychology has been started, and the *American Journal of Psychology* launched on its career. To fill his place will be impossible.

Prof. Joseph Le Conte, who has long stood first in this country among writers devoted to the conciliation of religion and science, is a gray-haired, much loved professor at the University of California, where he holds the chair of geology. In the last twelve years books and essays have followed rapidly from his pen. "Evolution in its Relation to Religious Thought," just issued by Appleton's, being the latest.



Those interested in Dr. Oswald's articles should read an essay by a fellow physician in the April *Sanitarium*, on the physiological causes that produce the Tramp, the Dead-Beat and the Crank.

Emerson was a monist when he wrote: "Few understand the secret of Time (*i. e.* the succession of phenomena),—that it is the distribution of a Whole in causal series." And Shelley expressed the same thought when he sang,—"The one remains, the many change and pass."

The *Century* announces a series of articles on dreams, presentiments, astrology, somnambulism, clairvoyance and spiritualism, by Rev. J. M. Buckley, whose recent article on "Faith-Healing" in that magazine shows remarkable ability for dealing with this dubious class of subjects.

Mr. Thomas Davidson of Orange, N. J., whose contributions to this journal will be remembered, opens the second session of his School of Philosophy at Farmington, Conn., this summer. The course embraces, among others, lectures on ethics, and on modern religious thought as exhibited in Tennyson's *In Memoriam*.

Why do we remember forwards and not backwards? Because, says a recent writer in *Mind*, our thoughts usually give their attention to the future, and so acquire the habit of facing forwards; hence in recalling the events, for example, of 1860, it comes more natural to begin with January and look forwards than with December and look backwards.

Prof. L. Noiré's book "Max Müller and the Philosophy of Language" was published by Longmans, Green & Co., London, in 1879. Those interested in the study of language, and especially in the work of Max Müller will find much instructive information in this book, from which extracts have been published in No. 33 of THE OPEN COURT, p. 884.

The June "Popular Science Monthly" will have a copiously illustrated article on "WHISTLES, ANCIENT AND MODERN," by M. L. GUTHRIE, in which many forms of these ear-piercing instruments are described, ranging from the boy's whistle of willow to curious earthen specimens, the work of the ancient Peruvians, and a form in which chemicals are employed.

In his letter accepting the presidency of the new Clark University at Worcester, Mass., Prof. Hall strongly implies that nothing could have induced him to leave his work at the John Hopkins but the expectation of building up a great institution of scientific research in his new position. The funds are ample, and it may be expected that psychology will have a prominent place.

The Western Unitarian Conference is now assembled in thirty-fourth annual session at the Third Unitarian Church of this city. Upon Tuesday last a meeting of the directors was held at headquarters. Wednesday was devoted to the reading of papers and reports upon Mission Work and to the discussion of kindred subjects. The commemorative exercises: "Fifty Years of Emerson, 1838-1888," were conducted in the First M. E. Church last evening. Addresses were made by Jenkin Lloyd Jones, Frank W. Gunsaulus and William C. Gannett; appropriate selections were read, and a poem recited by John W. Chadwick. Papers will be read to-day upon "Moral Education in the Public Schools" by George P. Brown; upon the "Relation of Literature to a Child's Education" by Mary E. Burt; and upon the "Actual Roots of Religion in Human Nature.—Does Religion mean more or less as Modern Thought discards the Creeds?" by Henry Doty Maxson. The subject of to-night's discussion at the First M. E. Church will be "The Possible American Church." The opening remarks are to be made by the President of the Conference, D. L. Shorey.

The burning of the Museum of Confucius, which took place lately in a remote village of China has destroyed one of the most remarkable literary and artistic collections in the world. The edifice was the ancestral home of the family of Confucius, built cen-

turies ago near Loo in the province of Shan-Tung. In this building, generation after generation, the male heirs of the great Chinese teacher have dwelt in an unbroken line for 2,500 years, bearing the title of dukes. The tomb of Confucius is a huge mound, overgrown with trees, on the banks of the River Sze, with carved animals on each corner and groves of cypress trees ranged solemnly around. The relics of his age, and the rich tributes of worship paid to him by generation after generation, since 600 B. C., have all been gathered into this "House of Confucius," lately destroyed. Here were accumulated precious texts on stone and marble and commentaries on his books, wonderful carvings in jade and alabaster, jars and vases of porcelain. Beyond all price, to say nothing of jewels and gold and silver work sent from all parts of the celestial kingdom, and even by reverential "outer barbarians." All, or nearly all, of these treasures are forever lost by this deplorable event, which has fallen upon China as nothing short of a national calamity. No liberality on the part of emperor or people can replace the vanished memorials of that remarkable teacher. —[From *The Paper World*.]

Xenos Clark in his essay "An English Monist" says on page 899 of THE OPEN COURT: "Who among men now-a-days can say that there is a future life?" This seems to imply a denial of a future life in any form. But we do not believe that we misconstrue Mr. Xenos Clark, if we understand that he has reference to a transcendental future life in some spiritual Utopia only, as is taught by dualistic doctrines. Our author makes, as far as I know, no objection to the view of a continuance of existence after death which has been proposed in Mr. Hegeler's essays "The Basis of Ethics," No. 1, and "The Soul," No. 15. Mr. Hegeler justly considers immortality (*viz.*: the immanent immortality as taught by Monism) as the corner-stone of Ethics. He says on page 396: "We can form our soul again in the growing generation through education and example, individually and collectively. We can preserve and elevate the soul of the present generation and of posterity. To preserve and to elevate the quality of the human soul, that is the basis of ethics." The subject of the continuance of life after death has also been treated in the editorial of No. 25, Evolution and Immortality. The transcendental immortality of a ghostlike existence in a supernatural dream-land as has been taught by dualism, is untenable and impossible *per se*, while the immanent immortality of a continuance in our children, in our works and perhaps most in the influence of our ideas upon the present and following generations is an undeniable fact.

Mr. John Chappellsmith, our venerable contributor, vigorous and healthy even now in his eighty-second year has sent us his essay on "Professor Max Müller and the Science of Thought," as a contribution explaining the problems of Monism. Mr. Chappellsmith professes to be a Monist as much as we do; but there is a gap between us which, as he takes it, can not be bridged over; our difference, he thinks, is radical and fundamental. He says, in a letter to us, extracts of which were published in THE OPEN COURT No. 26: "No matter but from pre-existing matter; no life but from pre-existing life; no brute mind but from pre-existing brute mind; no human mind but from pre-existing human mind." We repeat what we stated in a foot note on page 757, that we agree with Mr. Chappellsmith when he says: "No matter but from pre-existing matter; no life but from pre-existing life." When he declares, "No human mind but from pre-existing human mind," we agree in so far as the animal mind contains the germ of the human mind. Evolution, as we have explained in our editorial of No. XXV, page 729, is not an e-volving of something which existed before in an involved state; it is a development from simpler to more complex and richer, from lower to higher forms. There is no break in the continuity of life. No gap exists between the so-called inorganic and the organic matter.



Preyer explained in an essay which, if I am not mistaken, he delivered for the first time in 1872, and which has since been repeatedly published that there cannot have taken place a *generatio equevoca*. Life can only spring from life.

Our so-called inorganic elements on the surface of the earth Preyer considers as the dross, a remnant or residuum of a life which our planet lived in its first igneous state of a blazing incandescence. The sun, Preyer declares, lives the most intense life in the solar system, and there cannot have been a break in the development of living forms from this igneous (solar) life of our planet to the development of plants and animals.

If this is true, we have to revise and correct our view of matter; for matter then can no longer be considered as a dead, inert substance. The fiery state of our planet must have possessed a vitality from which the life of the planets and animals have been developed.

Matter in so far as it possesses self-motion must be conceded to exhibit life,—a kind of life in the broadest sense of the word. Life in the sense of self-motion develops organic life in the shape of vegetable and animal forms. Animal existence exhibits all the fundamental symptoms of psychical life, and psychical life has produced in the course of a long evolution the human mind with all its wonderful achievements.

This agrees well with Huxley's view, who in an address on Biogenesis delivered in 1874 before the scientific men of Liverpool, declared: No life from dead matter.

If the evolution from the monad to man is one unbroken chain, I do not say that man did develop from the brute; man developed from the germs of the higher possibilities in the animal nature. The difference seems to be slight and a mere difference of expression. But we attach great importance to this expression, for it must be borne in mind that the kinship of man to the animal world is not humiliating for man, but elevating for the animal. Max Müller is justified in censuring those who explain the state of the primeval man through accounts of the deteriorated savage. There is a great difference between the two, the one being progressive and aspiring, the other retrogressive and degenerating.

Commencing with the last number we are publishing an essay by Carus Sterne on "The Animal Soul and the Human Soul," which in opposition to Mr. Chappellsmith exactly represents our view of the subject.

## SONNET.

BY LOUIS BELROSE, JR.

I stood at eve beside my window-sill

Watching the west; the wood and then a height,

And then the sky; where one star, cold and bright,

Sank through the leafless boughs; and all was still.

I mused of things far off, when on the hill

Beneath the star, in some lone house, a light

Was lighted, and my thoughts, from distant flight,

Came there and hovered till the dark grew still.

Our hearts are with things near, with what can be

Part of our lives or theirs who feel with us

The joy and sorrow. All the land and sea.

And sky are less than one hearth-stone, and thus,

Against the curtain of immensity,

A candle dims the light of Hesperus.

For of the soul the body form doth take  
For soul is form, and doth the body make.

—Spenser.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XI.—Continued.—CHAPTER XII.

The cloud had gathered and the heavens were darkened. The Professor once more took up the treatise of his ungracious colleague: and it was just as if a lynx had destroyed a hare or a little kid and was preparing to enjoy the feast, when a wild lion threw himself upon the booty, shaking his mane, while the other ran away with the blows of the stronger beast upon his back.

Twice Ilse called her husband to dinner in vain; when she approached his chair anxiously she saw a disturbed countenance. "I cannot eat," he said, abruptly; "send over to ask Fritz to come here directly."

Ilse, alarmed, sent to the neighboring house and seated herself in the Professor's room, following him with her eyes as he strode up and down. "What has so excited you, Felix?" she asked, anxiously.

"I beg of you, dear wife, to dine without me," he said, continuing his rapid strides.

The Doctor entered hastily. "The fragment is not from a manuscript of Tacitus," said the Professor, to his friend.

"Vivat Bachhuber!" replied he, while still at the door, waving his hat.

"There is no reason to rejoice," interrupted the Professor, gloomily; "the fragment, wherever it may have come from, contains a passage of Tacitus."

"It must have come from some place," said the Doctor.

"No," cried the Professor, loudly; "the whole is a forgery. The upper part of the text contains words put together at random and the attempts of the editor to bring them into any rational connection are not happy. The under portion of the so-called fragment has been transcribed from one of the old fathers, who has introduced a hitherto unobserved sentence of Tacitus. The forger has written certain words of this quotation under one another on the parchment strip, regularly omitting the words lying between. This cannot be doubted."

He led the Doctor, who now looked as much perplexed as himself, to his books, and showed him the correctness of his statement.

"The forger has collected his learning from the printed text of the father, for he has been clumsy enough to transcribe an error in the print made by the compositor. So there is an end of the parchment sheet and of a German scholar also."

He took out his handkerchief to dry the perspiration on his forehead and threw himself into a chair.

"Hold!" exclaimed the Doctor. "Here it is a question of a scholar of honor and repute. Let us once more examine calmly whether there may not be an accidental coincidence."

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"Try," said the Professor; "I have done with it."

The Doctor long and anxiously collated the restored text of Struvelius with the printed words of the father.

At last he said sorrowfully: "What Struvelius has restored agrees with the sense and tenor of the words of the father so remarkably that one cannot help considering the slight variation in the words of his restoration as a cunning concealment of his acquaintance with the quotation; but still it is not impossible that by good luck and acuteness a person might arrive at the true connection, as he found it."

"I do not doubt for a moment that Struvelius made his restoration honorably and in good faith," replied the Professor; "but still his position is as annoying as possible. Deceiver or deceived, the unfortunate treatise is a terrible humiliation, not only for him but for our University."

"The words of the parchment strip itself," continued the Doctor, "are undoubtedly transcribed and undoubtedly a forgery; and it is your duty to reveal the state of the case."

"The duty of my husband?" asked Ilse, rising.

"Of him who has discovered the forgery; and if Struvelius were his most intimate friend, Felix must do it."

"Mention it first to him," implored Ilse. "Do not treat him as he has treated you; if he has been in error let him repair it himself."

The Professor reflected a moment and nodding to his friend said: "She is right." He hastened to the table and wrote to Professor Struvelius, expressing a wish to speak to him immediately on an important subject. He gave the letter to Gabriel and his heart felt lighter; he was now ready to enjoy his dinner.

Ilse begged the Doctor to remain with her husband and endeavored to lead their thoughts to other subjects. She took a letter from Frau Rollmaus from her pocket, in which she begged Ilse to send her something learned to read, selected by the Professor; and Ilse expressed a wish that they might thus make some return for the part-ridges and other game that Frau Rollmaus had sent to them. This helped in some degree to cast the sanguinary thoughts of the gloomy men into the background. At last she produced a long round sausage, which Frau Rollmaus had especially destined for the Doctor, and placed it on the table. When they looked at the sausage as it lay there so peaceable and comfortable in its ample dimensions, encircled by a blue ribbon, it was impossible not to acknowledge that, in spite of false appearances and empty presumption, there was still something sterling to be found on earth. As they contemplated the good solid dish, their hearts softened, and a gentle smile betrayed their human weakness.

There was a ring at the door and Struvelius made his appearance. The Professor collected himself and

went with firm steps into his room; the Doctor went quietly away, promising to return again shortly.

"It must have been apparent to Struvelius, after a glance at his colleague, that their last conversation threatened to throw a shadow over their present meeting, for he looked frightened and his hair stood on end. The Professor laid before him the printed passage of the old monk and only added these words: "This passage has escaped you."

"It has, indeed," exclaimed Struvelius, and sat for some time poring over it. "I ought to be satisfied with this confirmation," he said at last, looking up from the folio.

But the Professor laid his finger on the book, saying:

"An extraordinary typographical error in this edition has been copied into the text of the parchment strip which you have restored—an error which is corrected at the end of the book. The words of the parchment strip are thus partly put together from this printed passage and are a forgery."

Struvelius remained mute, but he was much alarmed, and looked anxiously upon the contracted brow of his colleague.

"It will now be to your interest to give the necessary explanations concerning this forgery to the public."

"A forgery is impossible," retorted Struvelius, incautiously. "I myself removed the old glue that covered the text from the parchment."

"Yet you tell me that the strip is not in your possession. You will believe that it is no pleasure to me to enter the ranks against a colleague; therefore you yourself must without delay make the whole matter public. For it stands to reason the forgery must be made known."

Struvelius reflected.

"I take for granted that you speak with the best intentions," he began at last, "but I am firmly convinced that the parchment is genuine, and I must leave it to you to do what you consider your duty. If you choose to attack your colleague publicly, I will endeavor to bear it."

Having said this, Struvelius went away obdurate, but much disquieted, and matters took their evil course. Ilse saw with sorrow how severely her husband suffered from the obstinacy of his colleague. The Professor now wrote a short statement of the affair in the literary journal to which he contributed. He introduced the fatal passage of the monk, and forbearingly expressed his regret that the acute author of the pamphlet had in some way been imposed upon by a forgery.

This decisive condemnation created an immense sensation in the University. Like a disturbed swarm of bees, the colleagues moved about confusedly. Struvelius had but few warm friends, but he had no oppo-



nents. It is true that at first, according to all literary judgment, he was considered as done for; but he himself was not of this opinion and composed a rejoinder. In this he boasted, not without self-complacency, of the satisfactory confirmation of his restoration by the passage in the monk's writing, which he had undoubtedly overlooked; he treated the coincidence of the error in printing with that in his parchment as an extraordinary, but in no ways unheard-of accident; and finally, he did not scruple to cast some sharp, covert hints at other scholars, who considered certain authors as their own peculiar domain, and despised a small accidental discovery, though an unprejudiced judge could not hope for a greater.

This offensive allusion to the hidden manuscript cut the Professor to the quick, but he proudly disclaimed to enter into any further contest before the public. The rejoinder of Struvelius was certainly unsuccessful; but it had the effect of giving courage to those members of the University who were ill-disposed toward Felix to join the side of the opponent. The thing was, at all events, doubtful, they said, and it was contrary to good fellowship to accuse a colleague openly of such a great oversight; the assailant might have left it to others to do so. But the better portion of the leading members of the University contended from the camp of the Professor against these weak ones. Some of the most distinguished, among them all those who assembled at Ilse's tea-table, determined that the affair should not drop. In fact, the quarrel was so unfavorable to Struvelius, that it was seriously represented to him that he was bound in honor to give some kind of explanation of the parchment; but he kept silent against this array of propositions as best he could.

Even the evenings in Ilse's room assumed from this circumstance a warlike character. Their most intimate friends—the Doctor, the Mineralogist, and, not last, Raschke—sat there as a council of war, consulting against the enemy. Raschke acknowledged one evening that he had just been with the obstinate opponent and had implored of him, at least to contrive that a third person should obtain a view of the parchment. Struvelius had in some measure relented and had regretted that he had promised silence, because a prospect had been held out to him of obtaining other rare manuscripts. Then Raschke had conjured him to renounce such dubious treasures and thus to buy back freedom of speech. It must clearly have been an animated discussion, for Raschke wiped his nose and eyes with a small tea-napkin which had a fringe, and was Ilse's pride, and put it into his pocket; and when Ilse laughingly reminded him of his theft, he brought out not only the napkin, but also a silk pocket-handkerchief, which he maintained must also belong to Ilse, although it was evidently the property of some gentleman who took snuff. It

was, therefore, suspected that he had brought the handkerchief from Struvelius' room.

"Not impossible," he said, "for we were excited."

The strange pocket-handkerchief lay on a chair and was looked upon by the party present with cold and hostile feelings.

#### CHAPTER XVI.

##### THE PROFESSORS' BALL.

The Professors' ball occurred during these academical disturbances—the only festival of the year which gave to all the families of the University the opportunity of meeting in gay society. The students and other acquaintances were also invited; the ball was the important event in the city and invitations were in great demand.

An academical dance is something quite different from another ball; for besides all the good qualities of a distinguished ball, it had the three merits of German scholarship—industry, freedom and indifference: industry in dancing, even in the case of the gentlemen, freedom in agreeable intercourse between young and old, and indifference to uniforms and patent leather pumps. Undoubtedly the young people even here bore a cosmopolitan character, for the same modes of dancing, dresses, nosegays and courtesies, glancing eyes and blushing cheeks, can be found at a thousand similar festivals from the Neva to California; but any one who was more observant might perceive in the faces of many of the maidens the intellectual eyes and eloquent lips which descended to them from their learned fathers, and perhaps some small academical peculiarities in curls and ribbons. The old saying which came from a past generation of students, that professors' daughters are either pretty or homely, commended itself here also to the notice of observers, the ordinary mixture of both qualities being rare. Besides a few officers and the flower of the city youth, among the dancers here and there a young scholar might be seen, thin and pale, with smooth lank hair, more fitted to bend thoughtfully over books than to float about in the giddy dance. But what gave its value to this festival was, not the young people, but the middle-aged gentlemen and ladies. Among the elder gentlemen with grey hair and joyful countenances who stood together in groups or sauntered pleasantly among the ladies, were many important faces, with delicate features and brisk, animated and cheerful demeanor. Among the ladies there were not a few who, the rest of the year, moved noiselessly about the studies of their husbands and the nursery, who now saw themselves in unwonted gala dress displayed under the bright glare of lights, and were as shy and bashful as they had been long ago in their maiden days.

There was this time, at the beginning of the festive meeting, an evident excitement in certain individual



groups. Werner's tea-party had taken for granted that Struvelius would not come. But he was there. He stood wrapt in thought, with his usual absent look, not far from the entrance, and Ilse and her husband had to pass him. When Ilse walked through the ball-room on the Professor's arm, she saw that the eyes of many were directed curiously toward her, and a heightened color rose in her cheeks. The Professor led her up to the wife of his colleague, Günther, who had agreed with Ilse that they were to remain together that evening, and Ilse was glad when she found herself established on one of the raised seats next to the cheerful woman; and at first she only ventured to look shyly about. But the splendor of the hall, the many fine people who moved about in it, and then the first sounds of the overture, raised her spirits. She now ventured to look more about her and search out her acquaintances and, above all, her dear husband. She saw him standing not far from the door of the room, in the midst of his friends and fellow-professors, towering head and shoulders above them. She saw not far from the other door his opponent, Struvelius, standing with his little retinue, chiefly of students. Thus stood these men, in every way divided, honorably restraining the angry feelings of their bosoms. Many of her husband's acquaintances came up to Ilse; amongst others the Doctor, who teased her because she had been so afraid that they would not find each other in the confusion of strange people. The Mineralogist also came and declared his intention of asking her to dance. But Ilse, earnestly entreating him, said:

"I beg of you not to do it. I am not perfect in these new city dances and you would not get on well with me; I had rather not dance. Besides, it is not necessary, for I am in a very gay mood and it amuses me to look at all the fine people."

Soon various strangers approached and were introduced to her, and she acquired greater ease in refusing to dance.

(To be continued.)

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W. ALEXANDER JOHNSON.

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Is treated in the Editorial of No. 25, "Evolution and Immortality." It is shown that Immortality according to the Monistic view is immanent; it is a continuance of ourselves in our children, in our ideas and in the work we have done during life. Rudolf Weyler in his essay "The Process of Progress" in No. 24, speaks of death as a mere transition and C. Billups in a letter of No. 25 criticizes the wrong notion of a transcendent immortality as taught by Dualism.

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PUBLISHED EVERY THURSDAY BY

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DR. PAUL CARUS, Editor.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 39. (Vol. II.—13.)

CHICAGO, MAY 24, 1888.

Two Dollars per Year  
Single Copies, 10 cts.

## FREE-WILL A MECHANICAL POSSIBILITY.

BY XENOS CLARK.

There are certain scientific analogies which tend strongly to confirm the Editor's view of Determinism and Free-will stated in No. 33 of THE OPEN COURT, and which for that reason will perhaps interest readers of this journal. While most of the analogies referred to are, I think, my own, I owe the suggestion that initiated this line of thought to so able an authority as Prof. Sylvester, the great English mathematician who by his late residence in this country gave such spur to American mathematical work. Prof. Sylvester's contribution to the subject, and the writer's degree of indebtedness to it, will be mentioned further on.

As the reader will remember, Dr. Carus says that monism settles the old free-will dispute between religion and science by admitting the truth of *both* free-will and determinism. Now, this at first seems paradoxical; but let us look a little farther. As everyone sees at once, the whole question is a practical one; the moralist's insistence on free-will is not due to affection for the theory, but to respect for the fact, for the immense practical importance of free-will in men's struggle for the good. Determinism is ordinarily deemed fatal to this struggle, because the man whose soul is wavering, if told that all he does is predetermined by law, considers in the first place that the responsibility is thus removed from him, and in the second place that, the result being predetermined, it is hopeless to fight against it. Too often he has fought and failed, and this seems to explain *why* he has failed; determinism only too aptly confirms his frequent experience.

To state the difficulty in another way, a great book can be imagined containing all the facts of the future, accurately predicted by science, and among them the acts of every man. Science has not yet produced such a book, but a universe ruled by determinism goes on as if it had, and we can reason on that basis. In this suppositious book, then, every man's life is written from beginning to end. And since it is there written, how can he change it? What chance has his free-will to operate? Yet moralists claim that tho' there be every reason, so far as science and determinism go, to predict a man's certain failure, nay, let the record already be placed in the great book, still he may thwart it if he sufficiently exert his free-will.

To escape from this hard dilemma, it seems necessary to discover some variety of determinism which, while fulfilling the requirements of science, does not permit the prediction of the future in *all its details*; and to this task the present inquiry now turns. For a first attempt, the reader may imagine a lever balanced by equal weights on either side of the fulcrum, which is at the center; he will at once perceive that if these weights are moved equal distances towards or from the fulcrum, the lever will still remain balanced. He may next imagine a series of such levers connected end to end, in a line. Then he can readily see that this series of levers will deliver at one end, unaltered, whatever force may be applied at the other, no matter how the intermediate weights are shifted, if shifted as just prescribed. Here is a crude sort of illustration of what is desired. The series of levers stands for a deterministic universe in which force expended and force received always balance, and the weights that can be shifted without altering the determinism, represent the action of free-will in such a universe.

But to attempt something more accurate than this. According to modern science, the mechanical cosmos in its ultimate analysis consists solely of innumerable molecules flying through space, and the force of this flight, in the case of each molecule, equals the product of its mass by its velocity. Take the sum of all these products at any given moment, and the total amount of force in the universe is known—a total which the law of conservation of energy says can never change. The molecules, it is true, may collide, may shift, may change, but whatever velocity one gives up another takes, and the result does not alter. But now suppose that some agent, which may be called free-will, has the power, in reference to a couple of molecules, of increasing the velocity of one and diminishing that of the other, provided the increase and decrease just balance. After such an interchange the total universe-force would remain unaltered, and yet free-will would have had its say. To narrow the illustration down to the human body, each body receives a measured amount of force from the environment, which exact amount is given forth again; but while the *amount* is the same, who can say that in its passage through the body the *distribution* of the force has not suffered alteration? It is true the molecular



physicist will probably laugh when a redistribution of force without alteration of amount is talked about, and will ask where in nature a single instance of such an occurrence can be cited; but the advocate of free-will can very pertinently remind him that the simpler processes of nature do not rightly furnish a criterion as to the molecular mechanism of the brain, an organ of which we as yet know so little, and in the study of which the most important revelations may be expected, since in the brain alone of all physical bodies that mystery, consciousness, appears. It may not be wrong, then, to assume that while the human brain satisfies the great law of determinism by giving forth just as much molecular force as it receives, the distribution of this force, in its passage through the brain, suffers alteration at the hands of free-will.

It must be freely admitted that all the above is hypothesis, and cannot be accorded even scientific probability. Its sole use is to confute the ultra-determinist, who needs to be reminded occasionally that to a mere 'perhaps,' in argument, a mere 'perhaps-not' is sufficient answer. The ultra-determinist insists that science and religion are irreconcilable on the point in dispute,—insists that a deterministic universe cannot exist in which there is a place for free-will. "A mere guess," we answer, "and in rebuttal we offer *our* guess, which we think is quite as good as yours, and possibly even better."

In addition to the analogies from physical science which have been offered, interesting confirmation of the position taken in this article may be drawn from mathematics. The student of algebra, for instance, will at once recall those equations which are true for either of two (and sometimes more) values of  $x$ ; and it will readily occur to him that if such an equation represent a mechanical process—say the reaction of a brain-cell in the act of willing—then there will be two alternative solutions for the equation, either of which is equally consistent with the mechanical laws involved. And what is called choice or free-will on the mental side, may, on the physical side, consist in the alternative offered by these two solutions, either of which satisfies determinism.

Ever since the discovery by Col. Peaucellier of his remarkable link-work for converting circular into rectilinear motion, the question of linkages has been a fascinating one to mathematicians, and invention has followed invention rapidly. Fortunately the subject is not a difficult one, and the general reader may find an easy popular presentation in Mr. A. B. Kempe's "How to Draw a Straight Line" (*Nature Series*). In their ordinary uses, linkages are little geometrical figures made of rods pivoted together at their ends, which describe difficult curves, solve equations, perform arithmetical processes, and attain all manner of

complicated results by simple means. In theoretical development Prof. Sylvester has carried the subject so far, that he even talks of the universe as a great linkage. "It is quite conceivable," he says, "that the whole universe may constitute one great linkage, *i. e.* a system of points bound to maintain invariable distances, certain of them from certain others, and that the law of gravitation and similar physical rules for reading off natural phenomena may be the consequence of this condition of things. If the Cosmic linkage is of the kind I have called complete, then determinism is the law of Nature; but if there be more than one degree of liberty in the system there will be room reserved for the play of free-will." (*Nature*, XII; p. 214.)

Unfortunately, without the use of wood-cuts, it is not possible to make evident the distinction Prof. Sylvester draws between what he names complete linkages and linkages with more than one degree of freedom; were it possible however, I could easily show that we are not compelled to find in the great mathematician's language any implication adverse to a Cosmic linkage admitting *both* free-will and determinism. Though Prof. Sylvester does not follow out this branch of the thought, it is a fact that those linkages possessing more than one degree of freedom which he mentions as possible instruments of free-will, do also possess their share of determinism. I have recently constructed a linkage for the transference of angles from one point to another, in such a manner that by varying an angle in one part of the link-work, I can reproduce equal angle-variations in another, distant part. But the apparatus is also so arranged that a second person, *A*, taking hold of the linkage, can at the same time but independently of me vary the orientation of that distant angle, making it face north or south or east or west, as he desires. Here, I control the size of the angle, *A* the orientation, or, in the terms of our analogy, I as determinism regulate the angle's dimension, and can always predict that with exactness, while *A* as free-will decides how the angle shall face. Build a universe of such linkages (it is so easy to build universes when one has had a little training!) and it will satisfy the demands of both free-will and determinism.

Even Prof. Sylvester's complete linkages, I may add, are not absolutely safe from free-will. As mathematicians will recall, and this observation is solely for their notice, there are certain positions of a complete linkage which present that mechanical ambiguity known as a dead-center, positions in which the linkage is at liberty to move in either of two directions while still fulfilling the laws of its determinism, and which accordingly an outside agent may take advantage of as it may elect. In a linkage-brain, if one can imagine



such, free-will will wait until the dead-centers come round and will then give the deciding thrust in the desired direction.

#### THE LAST DITCH OF DUALISM.

BY E. P. POWELL.

From the controversy between Dr. James and Prof. Von Gizycki it is clear that Dualism, having, as Prof. Diman and the theists of the last generation averred was their duty, pushed the "First Cause as far back as possible," now deliberately proceeds to rob him of a part of his Causality. Martineau who is by far the ablest representative of the Theistic School, does not hesitate in his recent work, "Study of Religion," to say that if we cannot harmonize free-will with Divine foreknowledge, then we must clip the latter. Prof. James does not hesitate to follow in the same path. Indeterminism does not claim all of causality. "It only asks to exist somewhere in the world; and this claim is incompatible with the existence of an Absolute One and All." I am aware that his phrase for God is in this case a borrowed term; nevertheless, there is left under any terminology the general fact that Dualism, not content with setting the cause of causes in the remotest retreat *behind* law, is now determined that he shall be shorn of a part of his causal efficiency. "The result must be a concession on the part of the universal claimer." But let us first get an authorized definition of Christian Dualism. Says Cardinal Newman, "I mean by the Supreme Being one who is simply self-dependent, and the only being who is such. I mean that He created all things out of nothing; and could destroy them as easily as he made them; and that in consequence He is separated from them by an abyss, and is incommunicable in all his attributes." This is authorized Dualism, absolute and undisturbed. Here you have the longed for worshipable factor; and the worshipping factor. Now I insist that for the worshipping factor to crowd in the case, and under the circumstances, is impertinent; especially to ask concessions of the Maker.

But if Dualism will tamper with Science it loses its equipoise; its nice balance of God and Nature, and the Nature end begins to come down, and the God end to go up. The only possible course is to refuse to listen to natural facts altogether, and stand by revelation. This our dualists have not done. They let in the idea of law, not mistrusting that it would go farther than the Mosaic Days. But having set Law, in long Eons, at work at creation, it soon became clear that there was no getting rid of Law. The Creator having made, or been compelled to make, one concession, was driven to concede more and more. Prof. Diman, whom I quoted in my previous article, says we believe that God is "the Supreme, existing alone, and

apart from the world"; but adds "a little consideration must convince any candid mind that evolution pushes the First Cause back;" and adds "it is our duty to push him as far back as possible." Beginning with "One Half" as worshipable, where are our dualists ending? Shall we say they have now a One Quarter? or a One Eighth? or a One Tenth?

But now comes the final difficulty. Having established a Cause of Causes, who is not the Cause of all Causes, but only the Cause of those Causes which are permissible in connection with human causative energy, there is a demand that He shall yet retain the worship of mankind as much as if he were in no way limited or hedged. He must remain a terminus of thought. It is clear on the other hand, so these indeterminists insist, that any view that is monistic, making Nature to be causal,—inclusive of all causative force,—so that we find in Nature the Moral and intellectual causation, as well as the physical, and therefore speak sometimes of Nature as The All in All, (see Bible,) or simply as the All;—any such view, they insist, is inconsistent with worship.

Now I cannot worship a power that is "pushed back" (see Diman), and made to grant concessions (see James), and to work supplements (see Bishop Foster); a Being that is extra-natural, and autocratic; and yet subject to democratic manipulation of authority; but I see no hindrance whatever, Dr. James to the contrary, to honoring that universal potency and purpose that has, according to Evolution, worked on our small globe; from monad to man;—on the line of ethical purpose and moral achievement. I can easily understand what the Nature lover means, who finds, beside the admirable but cold beauty of forms, the throbbing presence of Life and Love. Prof. James, in this case, has followed his mistake of smart writing;—and asks if we cannot as well worship the Half as the All. One would think that the Doctor had been writing Atlantic Book-Notices; and accustomed himself to taking us off at a quaff; one gulp, and that were the end of monism. Dualism having nothing to begin with but the half, ends with an unknowable quantity and decreasing power, and is slowly but certainly landing in Atheism.

Monism has no occasion to answer the sneer as to the Noun of Multitude, otherwise than to ask how large a part of the Infinite God of Dualism does the average worshiper succeed in worshipping? What section of the extra-natural, but badly pushed God does the howling salvationist worship? What particle of him does the Calvinist glorify when he reads Edward's sermons with a smacking relish, and indulges in dogmatic prayers concerning Hell and the Elect? I do not ask these questions by way of sneer, but as re-tort equivalent; leaving the Arithmetic of Religion at



least where it belongs. Now the monist, first of all, has to do with truth, and not with worship. The question at the outset is purely one of facts; and whatever view of the universe most conforms to facts, must be held to be, if not the correct one, at least the correct one for us to hold for the present.

I showed in a previous article, in reply to Theophilus, that religion has never been other than science, plus worship or emotion. And the question now is, does latest science fail to give us any basis for emotion? Has it at last come about that science can only give us a mental concept and no consequent feeling? This, indeed, would be strange. But I imagine this trouble of Dr. James is precisely the trouble that agitated the fellows who put the thumb-screw on Galileo. The Heliocentric Concept was so enormous that it swelled out the petty Deity of early Christianity to very extravagant proportions. It was the All that troubled them—they could not any longer worship.

Now the trouble with Monism is an enlargement of the moral universe to exactly fit to and match the physical; and it disturbs the flow of emotion! Why not take a Half to be sure? But if a half,—which is preferable, one-half of the Being, apart from Nature, who has been pushed, and pushed, and who has conceded a part of his causative power to Dr. James, and to you, and to me; and been compelled to subdivide it among millions more of indeterminists? Or one-half of the Eternal One who needs to yield nothing to oblige our Professors or us?

Quoting from "Our Heredity from God": "If then your cause of causes, alien to the world and to Nature, cannot be positively found anywhere, or located, of what value can He be, even as a relief to interrogation? The stern demand of reason for an adequate cause is answered by an adjustable potency, who is even compelled to hitch together his divine purposes with Supplementary Providences, while at each push of investigation he retreats into the deeper recesses of limbo. This is simply to accept of an unfindable in the place of Spencer's 'Unknownable'. Back, and still farther back, the Dualist has retired, hugging his Creator;—Science still pursuing and illumining his deeper recesses. Let us rather stand here: that God is not apart from Nature; that the magnificent reign of life and law that is unfolding year by year, and age by age, is but the pulsating presence of Him who is over all, through all, interpenetrating all. Then can we at last rest."

When I first took pen in hand, I purposed a reply to other points in Prof. James's letter; but the reasonable limitations of an article in THE OPEN COURT compel me to confine myself to one; yet with the kind permission of the Editor, I hope again to recur to the learned and genial Doctor in a future article.

## IS THE BANKING SYSTEM A MONOPOLY?

BY LYMAN J. GAGE.

In giving a brief description of the organization and operations of a bank, I shall confine myself to National banks alone. This for two reasons. First, because whatever may be said of them may be applied in a general way to all banks; and,

Second, because National banks have been held forth especially by portions of the public press and by platform orators as injurious monopolies. The many adjectives used in so describing them I will not repeat.

If any bank is an injurious monopoly, then National banks are so; and if they deserve such a characterization, they ought to be wound up and forbidden to prosecute their injurious vocation. Do they deserve it? Let us see. A National bank may be organized by any number of citizens, not less than five, in any place in the United States. There are certain restrictions as to capital. Thus, no bank can be organized with less than fifty thousand dollars in capital, and in certain cities they must have more, reference being in general had to the population of the village or city where such organization is proposed. The number of these organizations is nowhere limited or restricted—fifty or five hundred, so far as legal restriction is concerned, may be organized in Chicago within the next year—and the laws controlling their action are made, and may at any time be amended by the representatives of the people in Congress assembled. The officers, directors and shareholders are held to a strict accountability; and the number of bank officers now in prison, or in Canada, (by many regarded as another name for the same place,) is good evidence that the laws are enforced.

A monopoly is described in the dictionary as the sole power to vend goods; a power either coming as a free grant from a government or secured by purchase. How can this word, so defined, be applied to banks? But possibly, though not justly chargeable with monopoly, in a legal sense, they may exercise such powers as to practically bring them within the fair meaning of that word, giving it a little broader definition. What are in their powers, and what are their practices?

First, as to their powers: They may deposit with the government of the United States bonds to the amount of their capital, and issue their own notes to circulate as money to the amount of ninety per cent. of the bonds so deposited. For this privilege they pay a tax into the National treasury of one per cent. per annum on the average of their notes outstanding. The small value of this privilege may be inferred from the fact that Chicago banks with a right to issue over fourteen millions of dollars in such notes have outstanding less than one million dollars. The National banks of the country, as a whole, with a right to issue about five



hundred millions of such notes have outstanding only about one hundred and sixty-six millions.

Second: They have power to receive deposits of money, but no power to compel any man to deposit a penny.

Third: They have the power to lend money, but are forbidden by the law to loan any one person, firm or corporation, at any one period, more than ten per cent. of their capital. They are likewise forbidden to charge or receive a greater rate of interest than the law of the State allows its own citizens to charge or receive where the bank is located.

Fourth: They have power to sue and be sued in the courts the same as an individual.

Fifth: They may buy and sell exchange on other cities.

Sixth: They may hold real estate, for office purposes, or such as they may take in the settlement of debts previously contracted, but such real estate, so received in the settlement of debts, must not be carried longer than five years.

This, in instance, embraces all their powers and privileges. It is evident from the enumeration that they can do no business unless the people in the community in which the bank is located desire it. Like a hotel or a boarding house, they may build and furnish and open their doors, but they cannot compel any one to come in. With no power of compulsion, subject to full and energetic competition, what kind of an imagination is it that finds in them anything which partakes in any way of the character of a monopoly? And why should they be called by the opprobrious name of monopolist?

We have glanced at the laws under which National banks are created and the general powers conferred upon them. Let us now look at their practical operation, and see if we can discern in their practices anything injurious to the general good. As before stated, they cannot compel patronage from any one, and so far as they do have relations with the people, it must be by the voluntary wish of the people themselves. There are over three thousand National banks in the United States, one or more being found in every village of considerable size throughout the land.

As a whole, their capital aggregates five hundred and seventy-eight millions. This is a large amount, but they owe to the people, who voluntarily place their money on deposit with these banks, one thousand two hundred and forty millions. The depositors as a whole could buy the banks as a whole twice over, and have money left. What advantages do these depositors derive?

In many cases, they receive a small interest on their monies, which would otherwise be idle and unproductive. In all cases, they transfer their funds

from their own custody to a place of greater average security. By the check system in vogue, they are at all times able to transfer their money, in sums to suit, by orders on the bank, instead of by an actual transfer of the money itself. The keeping of a bank account also brings the depositor into acquaintance with his banker, and gives him superior claims upon the banker's regard, should he require to borrow for the temporary needs of his business or other purposes.

The amount loaned by National banks to their dealers, and to the public, as shown by the statements published in October last, was one thousand five hundred and eighty-seven millions. The value of these temporary loans to merchants, manufacturers, agriculturists, and, indeed, to the whole community cannot be estimated. The employees of many manufacturers, who each week with perfect regularity, receive their weekly pay, little know how often they would go home with an anxious mind and an empty pocket had not the employer found his banker ready and willing to make necessary advances to make up the weekly pay-roll.

A bank has been, not unaptly, compared to a reservoir, into which flow the temporarily unused funds of the community. Out from it, if judiciously conducted, a portion is sent in productive streams, to enrich the channels of trade and industry.

There are two ways in which the operatives at Glasgow might obtain American flour. They might put their money together, entrust it to a capable agent, and send him with it across the Atlantic, and thence across the country which separates the Atlantic from the mills at Minneapolis or Chicago, and there lay down their money, obtain their flour, and transport it to their homes in Glasgow by such means as they could command.

In the days of the patriarchs this would have been their method. So Jacob did when he sent his sons into Egypt to buy corn; but thanks to the developments of commerce, and the creation of intermediate agencies, a more convenient, economical, and a safer method now prevails. When the operative at Glasgow wants flour, he simply goes to his grocer, secures the needed quantity, and has the value of it entered to his debit on a week or a month's credit. His grocer, in his turn, gets flour from the jobber or wholesale dealer, on a credit of thirty or sixty days. But the latter does not send his money across the Atlantic. Instead of this, he sends a mail or telegraphic order to his broker in Chicago or Minneapolis, indicating the amount of flour he desires. The broker buys the commodity of the miller, who delivers the flour of the transportation company, and receives what is called a negotiable bill of lading. This instrument is merely a contract that, for a certain consideration, the company will transport the flour to Glasgow, and there deliver it to whoever



may be the legal holder of the bill of lading. This instrument the miller delivers to the broker, and receives payment for his flour in the form of a check upon the bank, where, quite possibly, the broker has no money to his credit. To cover his check, so drawn, the broker hurries to the bank, draws his draft, generally at sixty days' sight, upon the jobber in Glasgow, for the value of the flour, with the addition of his small charges. To the draft he attaches the bill of lading, and thus secured in the control of the property, the banker puts to the credit of the broker the equivalent of the draft, and thus is provided a fund for the payment of the broker's check.

The transaction is now so far advanced, that the flour is safely on its way to the consumer in Glasgow, and at this point the banker would seem to be the only one who is out of pocket as to money. If the matter went along to its natural conclusion, the flour would reach its destination, the draft drawn against it be duly paid to the banker in Glasgow or London for the credit and use of the American banker.

How then, will the American banker recover back the fund which it is thus seen he has transferred from his own strong box to the keeping of the English bank? By a very simple method, as you will see.

While this operation, the purchase and shipment of the flour, has been going on, another, but quite similar operation has occurred from the other side. The American millers have been receiving burlaps and bags from manufacturers in Scotland. Desiring to pay for these, they apply to the American banker, who, for the cash, will give them his draft or order against the funds to his credit in the English or Scotch bank, resulting from the draft or bill collected against the flour; and so the American banker has his fund in hand again. The flour is settled for, the burlaps are paid for, and all are satisfied. No money has passed between the two countries.

The operation described is, in effect, an indirect exchange of commodities—flour for burlaps. The intervention of the banker and the use of bills of exchange alone make this possible. This illustration fairly shows how the great traffic between nations is carried on. With imports to the value of seven hundred millions or more, and exports to a similar amount, not more than five to eight per cent. of the whole is settled for by direct shipments of money. The great bulk is settled in the way we have described in the example of the flour and the burlaps.

Surely this is a great service. It is, in substance, as if the banker stood midway between the two countries passing in with one hand the products of foreign skill, and passing out with the other hand, in fair exchange, the products of American industry. For this service, his charge for profit, competition has reduced

to an insignificant sum. His charge for profit applied to a barrel of flour, would be about one and one quarter cents per barrel.

Let me give you one or two instances taken from real transactions, which will illustrate better than argument can some of the offices and functions of a bank, and the celerity of modern methods as well.

Some time ago a banker was notified that he was wanted at the telephone. With the 'phone to his ear he recognized the voice of a dealer four miles distant, who said: "It is very important that I pay to-day to Messrs. Blank, Number Blank, Union Building, London, fifty-eight hundred pounds sterling. Can it be done?" The banker's reply was, "Yes, if the cable is working; I will attend to it at once. Send in your check before close of bank." Within two hours the payment was made in London. Not long since, a Chicago dealer appeared in the bank with a cablegram in his hand. It came from a correspondent in Smyrna, Asia. It brought information that owing to fear of a war blockade a consignment of certain goods was offered for immediate cash at a very low price. By the bank's facilities the matter was arranged, and within twelve hours the cargo was paid for, duly loaded, and on its way to America. Curiously enough it was a cargo of canary seed.

But if the bank or the banker is so important in our foreign trade, he is immensely more so in our home affairs, where the volume of industrial exchanges is many times greater. The mind can hardly take in and comprehend the great office served by bank checks in the purchase and sale of industrial products in the United States. The daily reports of the clearing houses of the principal cities show that daily transactions covered by checks drawn upon banks aggregate about one hundred and sixty millions of dollars per day. The total supply of money in the country is less than sixteen hundred millions, including gold, greenbacks, national bank notes, silver and silver certificates. If commercial transactions were carried by the use of money alone, an amount very much larger than our total present supply would be constantly in transit at enormous expense and great risk or, the stock of money remaining the same, the price of commodities and labor would shrink to a degree that no man can estimate, in order to be exchanged against direct cash payments. At least eighty-five per cent. of all commercial payments are now made with checks and drafts.

In the course of the exchanges hinted at rather than fully described, it is the function of the banker to make payment for industrial products at the point of production or at the point where they are first offered for sale, in ready cash, and to get his re-imbursement from the final market or point of consumption. To illustrate: The value of live animals annually mar-



keted at the Union Stock Yards in Chicago is not far from two hundred millions. All are paid for by check on the bank as fast as weighed. The larger part, as you know, go forward to other markets, either immediately or after being converted into cured meats. In the final markets throughout the East, the banker realizes the fund he has here advanced. The same method is in vogue regarding all agricultural products here marketed.

This service of the banker is surely a great advantage to the western farmer, unless too dearly secured. What is the banker's charge for making these cash payments here and taking his re-imbursement three days later in New York, Baltimore, Boston or Philadelphia? About fifty cents on each one thousand dollars is the average charge.

I might speak of the honorable character, of an office and duty so high and important as we have seen rest upon the banker. I might also show in many other ways the benefit he confers upon the community, a benefit not conferred upon the rich and prosperous class alone, but shared in by the humblest member of our industrial society. If the suggestions I have made go to show that he fills a necessary and useful place in the social economical system my object is attained.

I should not like to attempt to prove that he is, by the nature of his calling, a disinterested philanthropist. "Favor and benevolence are not the attributes of sound banking; the rigid performance of contracts is its sure foundation."

The banker is the natural result of the unfolding and development of the modern social state. In this unfolding the division of labor has been a marked feature, and in this process of division, the banker, the broker, and the insurance office, have been indispensable factors. To try to eliminate them would be a folly as great as to dis sever from the human body any of its useful members.

#### RELIGION AND MORALS.

Professor Georg von Gizycki declares in his letter, published on page 682 of *THE OPEN COURT*, that Theology and Metaphysics have nothing to do with Morality. This is true only in so far as men who embrace or reject certain theological and metaphysical views may or may not act morally. The side issues of theology and metaphysics, which by theologians and metaphysical thinkers are generally considered as the most important of things, have as a rule little or no bearing whatever on morality. In so far, however, as Theology and Metaphysics discuss vital religious and philosophical problems, they *have* a certain relation to morality.

Morality depends on a sound conception of ourselves in relation to the world and, therefore, philosophical

and religious errors will have an injurious effect upon morality.

If we allow ourselves to be carried away by impulse, we are not moral. Animals are un-moral. Their brutish conduct is not immoral; it is natural in them, as it becomes their brutish nature; and their good conduct (self-sacrifice of mothers for their young, etc.), although we justly praise it, can not be properly considered as moral, because it is the result of instinct done from impulse and not an act of conscious deliberation. Man is moral in so far as he consciously and deliberately regulates his actions according to his relations to the All. Religion supplies him with the reason *why* the principles of his actions should be such as they are, and *why* he should do what he considers to be right and proper to do.

Religion, if understood to be our recognition of the Unity in Nature, teaches us to consider ourselves as parts of the whole; and who can doubt its strong influence upon all our conduct? The laws of the Universe govern also the motions of our body. Heat and gravitation operate as much in the functions of our organs as in the solar systems of the universe. Our lives depend upon surrounding nature, upon the atmosphere we breathe, the soil upon which we stand and the food which mother earth produces for us. Our existence is a continuous exchange and inter-communication with the whole "in which we live and move and have our being." The very pressure of the air upon our limbs is part of our life, which, if taken away, would cause instant dissolution.

But we are not only physical parts of Nature, we belong also to a higher order of natural growth which discloses ethical ideas and moral duties. The threads of our life are connected with the lives of other beings like ourselves, of beings whose origin is the same as ours and with whom we form one great family. These relations, although woven of invisible threads, are of no less importance than the coarser relations of our body to physical Nature. These relations of social and family life, if recognized, will teach us duties, and the performance of these duties is morality.

Religion, Science, Philosophy, Ethics and Morals accordingly are closely related to each other; religion is the recognition of the Unity in Nature which makes us feel that we are parts of it; Science is the study of the several departments of nature by observation and classification of its phenomena; philosophy is the result of the sciences, systematized. Ethics is the science of morals, and Morality is our behavior regulated by religion, viz., by the recognition of the Unity of Nature in all its phases, the lower physical, the physiological and above all the social relations between man and man.

Those who are moral, prove that they *have* re-



ligion, viz., religion as defined by THE OPEN COURT; for the moral man regulates his actions in accordance with his duties as implied by his relations to the All, especially to his fellow-beings. It is of great consequence to *have* religion in this sense, but it is of little consequence to *confess* a religion. *Religion* has to do with morals and morality, but all the different *religions* have little or no connection with morality, and if they have, it is only in so far as they confess *religion*.

False religions and wrong philosophies have always had detrimental effects upon their adherents. The quietism of India has nipped in the bud a grand and rich civilization, and the dualism of the middle ages has dragged many thousand victims to a shameful death for the alleged crime of witchcraft. The evil consequences of fundamental errors in philosophy and in religion bear witness to the dependence of morality on philosophy and religion. If you poison the religious or philosophical views of a man or of a nation, you will poison their morality also. The roots of man's intellectual life (viz., of that in man which makes of him a human being) are his convictions and his emotional inclinations (i. e., his philosophy and his religion), while his actions are the fruits thereof, by which we may recognize their soundness and vitality. P. C.

## CORRESPONDENCE.

### THEOLOGY AND MORALITY.

BERLIN, April 9, 1888.

DR. PAUL CARUS. *Dear Sir:*—The copy of Prof. James's reply to my article, which you were so kind as to forward me, I received to-day. Accept my thanks for the same. I have read it with pleasure. Those who believe that an answer to Prof. James's remarks is not contained in the article itself, I could satisfy only by an elaborate treatment of the subject, wherein I would have to prove in particular that morals are totally independent of Theology and Metaphysics. This, however, would require more space than THE OPEN COURT would wish to devote to the question. I am at present occupied with the preparation of a work entitled "*Moral-Philosophie*," in which I thoroughly discuss the point just mentioned as well as the Free-Will Controversy, and I shall beg leave to send you and Prof. James during the present year—as I hope—a copy of my work in lieu of an answer to his letter. With this, I willingly grant Prof. James the last word in the matter.

If you deem it proper, you may publish what I have written.

Respectfully,

GEORG VON GIŻYCKI.

### EVIL SPIRITS AND PUNISHMENT OF SIN.

To the Editor of THE OPEN COURT:

SIR:—I beg to thank you for printing my letter of April 10th, thus illustrating that you admit communications which echo sentiments different from your own.

As I expected, you think my views of "Creators of discord" anthropomorphic. And why should we not express such thoughts anthropomorphically? It is in accord with the method of the first ages. I shall be glad if you will also print this letter, for I am a seeker after truth, and have been from my boyhood, when I read Theodore Parker, Emerson, and the then aggressive univers-

alists. I really tried to reject, if the truth permitted, the idea of future suffering for wrong-doing in life present. First, I affirm there is no *a priori* reason against it; second, it accords with the facts of primitive history; third, neither science nor the *ipse dixit* of any modern can set aside those facts, which are found on the monuments and parchments of Egypt, in the inscriptions of Assyria, in the records of Accadian and Semitic Babylonians, as well as in the Hebrew Scriptures. My point is not their inspiration, but their contents. To those records I appeal in proof of my position. For ready reference and use of your many readers let me refer to a little book on "God in Creation," published by Mr. Whittaker, No. 2 Bible House, N. Y., for half a dollar, which has a chapter on "Satan and Evil Spirits," citing ancient legends from the above mentioned peoples and giving their account of why they were expelled from heaven and came to our earth. The facts as recorded are as vivid as any romancer or painter could present them. My point is that primitive man so believed, and wrote, and prayed for deliverance from Evil Spirits. Hence the Typho of Egypt, Ahriman and Angro Mainyu of Persia, the serpent, dragon, or Tiamat of Babylon, are as emphatic of such belief as the Serpent of Eden and the dragon of the Apocalypse. Mr. Schuyler's beautiful poem is only a part of the truth. Men have ever attributed to Satan more than is his due, but that does not *prove* the non-existence of such a being, who is oppugnant alike to God and man.

History shows that the belief of mankind and their inscribed records are quite as explicit on this matter as the Hebrew and Christian writings. It is testimony which would carry conviction with any modern jury who found upon the facts as presented. It is the verdict of myriads who would find otherwise if they could. I certainly would. It is no comfort or solace to me to believe in a region occupied by rebels against Heaven, who have exiled themselves from His presence and the enjoyment of holy companions. Nor shall I trouble, like Ely for the Ark of God, if you marshal all your resources, and *prove* that the records and inscriptions named above are modern devices, and so not credible as presenting primitive belief. If they were written 5,000 years ago, more or less, and have been preserved to this day, they demand honest consideration, and are not to be explained away. Learned Germans and Frenchmen, learned English and Americans have studied, translated and commented upon them, but none of them have found or pronounced them spurious, unhistorical, or false in recorded facts. Can you show they do not express the belief of those ancient peoples, and that properly rendered they do not narrate belief in fallen angels having a chief over them?

Such belief must be accounted of and accounted for historically, before we can safely scout it. The consensus of universal mankind is not to be set aside by any modern notions of science or self-evolved theories. As it was with primitive man so it is now with few exceptions, mankind believe in a Being of tremendous powers for mischief; who first rebelled in heaven, and then tempted and seduced men on earth to rebellion. This ancient belief is expressed in legends coupled with legends of creation; the fall of the angels and the sin of the first man are narrated in a similar way; the decree of penalty and punishment is also given. Such is the history. To regard it as a human invention, the product of imagination in men of poetical temperament, who lived upon fruits and flowers,—men in the scattered regions of the ancient world,—requires more faith than I possess. Science and theory must fail as against such attested facts. If the history is authentic, the facts must stand. Can you disprove the legends and the facts?

E. COWLEY.

[The universal belief in spirits no more proves the real existence of spirits than the universal belief in witches during the middle ages can be used as a testimony in favor of witchcraft. Believers in devils who are possessed of a lively imagination, will



see, and hear and converse with devils. They will take their hallucinations as reliable experiences, and other believers will not doubt their circumstantial and realistic accounts. Goethe says: "*Das Wunder ist der Glaubens liebster Künd.*"

But although devils are not spiritual beings or real persons, the idea of "future suffering for wrong-doing in life present" is a truth. I refer by way of illustration to the Arabian Parable translated by H. Byron, No. 30, p. 839 of THE OPEN COURT. All wrong-doing has evil consequences which the wrong-doer himself, his children and others also will have to bear. The iniquity of the fathers will be visited upon the children and upon the children's children unto the third and to the fourth generation.]

#### MATTER AND FORM.

MORRIS, April 30, 1888.

To the Editor of THE OPEN COURT:

Please permit a friend to call your attention to the editorial in the last number of THE OPEN COURT, "Idealism, Realism and Monism," where to my understanding one or more fatal errors are found in direct conflict with our pet notions of the monistic theory.

On page 921, at the close of the last paragraph but one, I find this declaration: "Matter alone will never be made to account for the problems of nature."

We naturally conclude the purpose of the passage is to declare the sentiment of the foregoing article. This conclusion is farther strengthened by qualifying matter as an *inert substance*, in the beginning of the same paragraph.

Now if you intended to say that Matter is a *dead, lifeless mass of itself*, that must be operated by a foreign power to work out the phenomenal "problems of nature," it could not have been stated in more unmistakable language. If this is your meaning I have entirely misapprehended your monistic views heretofore as declared in No. 24, in the article, "Monism and Religion," an early editorial where you place yourself on record as to your Monistic views.

That the monistic idea admits of a supervening power distinct from and outside of matter, from whatever source, on which matter is dependent for its energies of life and action, is not my conception of the term. Certainly if the term *inert* is properly applied to matter as denoting its nature, such power is indispensable. This admission is virtually falling back on the mytho-theological basis, which we do not admit.

Since you have had charge of THE OPEN COURT I have been more than pleased with your style and the soundness of your Monistic sentiments, and I have confidence that you can and will at once straighten out these seeming irregularities. Fraternally, a co-worker. L. A. FISHER.

[Mr. Fisher is right in not admitting any "supervening" or "foreign" power acting upon matter, and I believe that our editorials did not leave any doubt in that respect. The source of our difference must be sought for in a different conception of the term matter.

Matter is an abstract. This means that it is a generalized conception of all the innumerable sensations and notions which we have of material things. The adjective *material* denotes the qualities of extension and weight, and, of course, *material* excludes other qualities, for instance velocity, heat, color, feeling, thinking, etc. According to the materialistic view the phenomena of life spirit, etc. can be explained from matter, and from matter alone. We do not think so, for we believe that spirit, life, feeling are qualities of reality which are not included in matter and which cannot be explained from matter either.

Matter, being an abstract, does not exist of and by itself. It exists only in and by reality. It exists in and with the objects of our environment from which we have abstracted our notion of matter. We shall never find an object which is matter and nothing

but matter. Every material thing (and all things are material) has also a certain shape; which shape (just as much as matter) makes the thing to be what it is. Take for instance a bronze figure; the matter of the statue is not all what you perceive, you also see a certain shape or form, and this non-material part of the real thing is indeed its most important and perhaps most valuable part. If you declare that you will explain the whole bronze figure from the material alone of which it consists, I should call you a materialist.

From the standpoint of monism we maintain that the elementary conditions of life, especially those of feeling, must be inherent in matter. But we do not say that matter alone (*viz.*, matter denoting extension and weight) will suffice for an explanation of life. Mechanical explanations of life from an outside pressure, as for instance the pressure of a weight in a clock, have hitherto proved failures. Materialism has for the sake of consistency been led to explain gravitation also by this principle of an outside push upon the inert matter. But such theories (as propounded by Le Sage and others) must still be considered as untenable hypotheses.

I say that the materialistic view is wrong, because you must take into consideration that form also is necessary for a correct conception of reality. Matter is not form and form is not matter. Both are abstractions from reality, both are generalizations of certain qualities perceived in reality. Neither form nor matter are entities which exist by themselves and apart from reality. They are both to be found in reality, from which our conceptions of them are taken.]

#### NATURAL RELIGION AND MONISM.

To the Editor of THE OPEN COURT:

The persistency with which modern thinkers still pander to the religious prejudices of the masses is one of the most deplorable concomitants to the present realistic and monistic school of thought. Though the motive may be pure, being, no doubt, prompted by the laudable desire to make the transition from a hoary superstition into the enlightened realms of modern thought as enticing and agreeable as possible, yet I think the popular method of dealing in half-truths, disguising facts and using religious nomenclature to convey ideas strictly antithetical to religious thought should be scorned by every true reformer.

Judging from the able review of Prof. Seeley's *Natural Religion* published in THE OPEN COURT, this work abounds with startling inconsistencies and deplorable absurdities. For instance: "His (the author's) position on other points is thoroughly monistic; i. e., he finds in the order and the oneness of the Universe, which science has made evident to man, the Deity and the religion of the future." Any schoolboy can, no doubt, instantly discover in this simple statement an example of the glaring inconsistencies and absurdities referred to.

The sense and meaning of the term "Monism"—"Oneness"—absolutely excludes and makes impossible the dualism of nature and of the Deity spoken of; and the Professor's *Natural Religion* is either regular old school Theology and a God supreme, or it is pure Monism—nature only—supreme. It cannot be both. Neither can the two be reconciled or harmonized. One is true, the other false, and if one survives the other must die.

Monism excludes a God, because it needs none and is self-sufficient unto itself. It embraces the great *All*—the infinite Cosmos in infinite space and recognizes and needs no power or God exterior, superior, interior or anterior to it. It is all, and in all seeks and finds, with Tyndall, "the promise and potency of all life." It needs no shrine for worship, and throughout the infinite realms of space, among the infinite aggregations of worlds and systems, it has not discovered a God or throne.

God, Divinity, on the other hand, implies personality, limit, outline, form, caprice, and these necessitate a physical-being and



organism. Worship, adoration, supplication, religion, etc., necessitate a being with brain, muscle and nervous system—one who can hear, see, reason and answer prayer. But the loftiest conceptions of poet or Idealist cannot picture such a God except in the anthropomorphic garb of a *man*. This is the sole and original conception of the God of Genesis, and the accumulated genius and intelligence of the nineteenth century cannot improve on it. And such a God is the only true God, *if there is a God*; but such a God is a mockery and a fetish.

Again I quote: "The power that holds the universe together—that gives unity to nature, that makes it *One*, can therefore be worshipped, because it supplies to man the law of life." Here we have another example of the author's utter incomprehensibility of the true synthesis of nature. There is no such a "Power" that can or ever could give anything to nature. Nature is all, ever was, and ever will be all. All powers *are* it and part of it, and no power exists outside of it to give it unity or to supply anything. The laws of life also were never "supplied," but are co-existent with the universe and existed long before man on this planet, and are eternal. "The power that holds the Universe together" is invested in each atom, in fact *is* each atom, as the atom and this power can not be separated. And these atoms, when composing a world or system or universe, possess no more attributes of Divinity than a decomposed leaf of my fragrant Havana circling in the air. They see not, hear not, reason not, and man's supplications, thanks, or curses would be but so much energy foolishly wasted. As one atom attracts another, as a magnet attracts steel, entirely without thought or volition, so these atoms, without thought or volition in infinite aggregation, *hold themselves together* in sun, moon, star and system. It is a perpetual motion of infinite numbers of batteries, chemical processes, and physical operations that simply act fortuitously and of necessity. Idealists have ever sought, but never found, in an imaginary greater power, beyond the universe, the cause of all existence and life, the Naturalist seeks and finds it in the invisible atom, tiny and humble in itself, but infinite and omnipotent in inconceivable aggregation.

Unless Prof. Seeley and his school of pseudologists can demonstrate how a God with a brain can be infinite, or a God without a brain can be a God, they had better withdraw their literature, let Monism alone, and join the nearest church. Above all let us be honest and consistent. OTTO WETTSTEIN.

Rochelle, Ill., May 13, 1888.

[Our correspondent is right in denouncing any pandering to the prejudices of a "hoary superstition," but it seems as if he were not just toward his adversaries. At this present day "God" is believed to be a great and good old man by children only. And we shall probably look in vain for a person who imagines that God has "brain, muscle and a nervous system." In trying to liberate others from their superstitions, a freethinker must not impute to them conceptions which they do not entertain; and he must at the same time freely and candidly point out what is true and what is false in their notions. Such equitableness becomes the freethinker much more than the bigot, for the freethinker *is* or at least *pretends* to be without prejudices, and aspires to judge *sine ira ac studio*. This uprightness of criticism, moreover, is not only fair, but will prove more helpful in truly advancing humanity on the path of free thought. By being just in acknowledging what is right in the old religions, we shall be all the better able to show them what is wrong. Such an impartial and equitable standpoint prevents us from becoming radical bigots—a class of people who are no less orthodox and narrow than the religious bigots.]

#### CEREBRAL SCIENCE.

BOSTON, April 21, 1888.

IN THE OPEN COURT of September 15, an article headed "The Old and New Phrenology," contained so many careless and enor-

mous statements that it would seem necessary to mention some of them as the public generally know but little on this subject and are easily misled.

The writer speaks of Phrenology as a science of bumps or bumpology, but persons of respectable intelligence on such subjects know that Phrenology was established by Dr. F. J. Gall, as a doctrine of the anatomy and physiology of the brain, with which the skull was associated only as indicating by its form the development of the brain.

Gall was the pioneer teacher of the *true anatomy of the brain*, and what he taught became the basis of modern cerebral anatomy. His merit as an anatomist alone, if he had made no other discoveries, should entitle him to scientific immortality. The name of his pupil Reil is immortalized in the anatomy of the brain by the name "Island of Reil," given to a small part of the brain. It has been common since the deaths of Gall and Spurzheim to neglect the proper recognition of their anatomical discoveries, embodied in their memoir to the French Institute, but Reil and Loder, themselves, among the most eminent anatomists of their time, spoke of Gall, after attending his dissections, as a wonderful anatomist, whose discoveries were of the most marvelous character, greater as they said than it would seem possible for one man to have discovered in a life time.

The details of the organology of Gall and Spurzheim have been generally approved by all who have tested them in the *only proper manner*, the examination of the *development* of the brain in men and animals, and I might give a long list of the names of eminent scientists chiefly of the medical profession, who have endorsed them. But the details were of course inaccurate, as any science must be in its first development. Nevertheless the fundamental doctrine which Gall established against a powerful opposition, is to-day recognized by all, and even Brown Legnard, who is the most ultra opponent of special localizations, to an iconoclastic extent, says in *The Forum* for April:

"Only very confused ideas were current up to the time when Gall undertook to establish his well known doctrines. Science owes to that great thinker an irrefutable demonstration of the necessity of admitting that each distinct mental or physical cerebral function requires for its performance absolutely distinct organs. No one now among philosophers, physiologists, or physicians, denies the correctness of this fundamental principle."

It does not diminish the value of this statement, that he also declares Gall's localizations to have disappeared in the progress of science, for he does not admit the validity of evidences which satisfy others, and he is equally hostile to the localizations which are supposed to have been demonstrated by Fremy, Charcot, Fritsch and Hitzig, Broca and others.

It remains incontestable that Gall outlined first the true anatomy of the brain, and also the fundamental principle of its physiology, both of which are now recognized as permanently established. As to his special localizations, and the additions of Spurzheim, physiologists have made little progress in determining their validity, because they have abandoned generally the method of Gall and Spurzheim, that of judging from comparative development, and have adopted methods which are excessively laborious, tedious, and I might add, hopeless for any complete determination of central functions.

Nevertheless, tedious and unsatisfactory as their methods have been, they have succeeded in confirming substantially three of the localizations of Gall; and yet physiological writers invariably neglect to state that the location for the faculty of language demonstrated in aptosis, is the original location of Gall but slightly extended. The reason perhaps is that they know so little of the localities described by Gall, in consequence of neglecting his writings.

My own experiments by more practical and simple methods



have established the substantial correctness of a majority of the locations of Gall and Spurzheim, only a small number of which were entirely erroneous. These discoveries and demonstrations have been presented for many years in medical colleges and tested before investigating committees with unanimous acceptance wherever presented, but are not extensively known, in consequence of their limited production. They will appear in due time in a series of volumes, but have been only briefly stated in the "System of Anthropology," published thirty-four years ago. At present they are being presented in the *Journal of Man*.

I have no objections to criticisms upon that notorious charlatan and ignoramus, the late O. S. Fowler, but it is exceedingly unjust and discourteous to introduce the names of such persons as if they were in any sense the representatives of any science, and it is hardly worth while to discuss any further such remarks as these: "As the frontal brain develops and broadens the forehead, the skull does not always keep pace with this growth, so that one with a narrow or even low forehead may have a large brain compressed into narrow compass." Intelligent persons know that brains are not made of elastic materials, and that ridges upon the bones of the skull are not the index of cerebral development.

The science of the brain has a duplex character, which was not recognized by Gall. He looked for psychic functions, as more recent explorers have looked for physiological. Both exist; for the brain is the commanding center of physiology as well as psychology. I have shown that each portion of the brain has a definite and demonstrable influence upon physiological processes, and at the same time a definite psychic influence. The explorations of the psychic functions gives us that understanding of the soul which has not been and cannot be obtained by any other method. It demonstrates a psychology, the perfection, beauty and satisfying completeness of which astonish those who become acquainted with it.

JOS. RODES BUCHANAN.

## BOOK REVIEWS.

THOMAS BAILEY ALDRICH, the editor of the *Atlantic Monthly*, will contribute to the June *Scribner's* a poem in his lighter vein, entitled "Corydon—A Pastoral."

The frontispiece of the May *Magazine of American History* is an elegant and life-like portrait of the late Alfred S. Barnes, whose interesting career is sketched by the editor in a graphic account of the way in which he founded his great school-book publishing-house. It is a story with a moral which every young man in America might read and consider to advantage. A scholarly study follows of "Ancient Society in Tennessee," in which General G. P. Thruston, of the Tennessee Historical Society, shows very conclusively that the mound builders were Indians. This is one of the ablest articles on the much-discussed subject ever presented to the reading public in popular form, and it is destined to be an authority in all the future. Other papers, as "Between Albany and Buffalo," "Personal Recollections of Abraham Lincoln," "The Fisheries Treaty—a Canadian View," etc., are no less interesting. The several departments of this valuable publication form a small compendium of history in themselves. Price, \$5.00 a year. Published at 743 Broadway, New York.

In the *Atlantic Monthly* for June, Houghton, Mifflin & Co., Boston, Theodore Child's article on "The Literary Career in France" is a timely contribution to periodical literature, inasmuch as there is just now so much discussion in the newspapers concerning the rewards and drawbacks of authorship. Some new and significant information, of particular moment to historians and geographers, is contained in an article by Francis Parkman, entitled "The Discovery of the Rocky Mountains." Ellen Terry Johnson

writes in a manner at once thoughtful and graphic concerning Madame des Ursins, her wild ambition, and her great influence. The serial chapters in the June *Atlantic* are continuations of the study of Japan by E. H. House. The Yokohama shopkeeper whom Mr. House introduces will be recognized by all who have traveled in the East as a faithful picture of many of the low commercial adventurers who infest Japanese sea-port towns. Recent American fiction and biography are passed in review by skillful critics, and, together with notices of other books of the month, conclude an excellent number.

WIDE AWAKE for May is as bright and sunny as a May morning. The beautiful frontispiece (after Steffek's famous painting) shows the late Emperor William and his brother when boys, in company with their famous mother, Queen Louise. A brief article about the Emperor, with a portrait from his last life-photograph is timely.

"President Madison's Family," with its beautiful portraits of Dolly Madison and other members of the family, is very chatty and entertaining. These glimpses into the home life of the children of our presidents appeal forcibly to every American boy and girl. Young coin collectors will turn first to the "Pleasures of a Young Numismatist." Mrs. Clark's "Rise and Fall of the Migot" is delightful in its fun, which "goes home" to every lad who has owned an amateur printing press. Several jolly poems add to the entertainment furnished. The more substantial features include "In a Typhoon," by Olive Risley Seward, "Chinese Dragons," by Professor Douglas of the British Museum, "Night in a Beaver Town," by Edmund Collins. In the June issue will begin Mrs. Crowningshield's serial of training-ship life, "Plucky Smalls: His Story."

Newsdealers have this issue for 20 cents, or it will be mailed by the publishers, D. Lothrop Company, Boston. A sample back number of any of the Lothrop magazines costs but 5 cents, or of the four for 15 cents.

ANIMAL MAGNETISM. By Alfred Binet and Charles Féré, Assistant Physicians at the Salpêtrière. Translated into English. New York: D. Appleton & Co.

Mesmerism, we learn from this book, had its origin towards the middle of the sixteenth century. Dr. Mesmer ascribed to man the ability of exercising on his fellows a power analogous to that of a magnet. Subjects when put to sleep present an acceleration of the pulse and of the breathing; the subject sometimes makes a direct reply to questions addressed to him, but is generally unconscious of any sudden noise made at his ear. The eyes are closed. On raising the eyelids the pupil is seen to be contracted and turned upwards, the surface of the body is insensible to pain.

Braid proved that hypnotism could be produced by fixing the eyes on a given object for a few moments, that the character of the sleep is not always the same, that breathing on the face had the effect of changing the hypnotic state, and breathing on it a second time caused the subject to awake. Formerly magnetism made use of what is termed passes. The passes consist in lightly touching the subject either directly or indirectly through his clothes, and a prolonged repetition of these gestures produced sleep. But discredit was thrown on magnetism by experimenters who caused subjects to sit opposite them, pressed their knees against their own and grasped the thumbs of the subjects with their hands and sometimes applied their foreheads to those of their subjects for experiment. These gestures which appeared indecent, were founded on accurate observation, and it has since been verified, that they are most effective.

Sensorial excitations produce hypnosis in two ways: when they are strong and abrupt, and when they are faint and continued for a long period. Hypnosis is induced by suggestion and the personality of the operator. The first attempt to hypnotize nearly



always fails and usually succeeds when the experiment has been repeated several times. It has long been a disputed question whether every person could be put to sleep, and it has been ascertained that nervous people and those suffering from hysteria are most predisposed to hypnotic sleep—and if one has never been hypnotized his consent and good will are necessary for the operation. Hypnotic sleep which is produced with so much difficulty and delay in fresh subjects, occurs rapidly with those who have been long under treatment, some patients being hypnotized by a single abrupt gesture. In the case of some subjects the hallucination begins and ends during somnambulism, in others it is more permanent and persists during the waking state. Hallucination may be destroyed by three different processes: by Suggestion, by Physical excitement and by the Magnet.

Paralysis by means of Suggestion is an interesting branch of Hypnotism. If a somnambulist is impressed with the idea that his right arm is paralyzed, we see the limb lose its motor power, but the strength of the opposite arm is increased so as to compensate to a certain extent for the loss of the paralyzed arm, and the paralysis has been known to be prolonged for twenty-four hours.

The Paralysis of the Will is termed Aboulia; for instance if a patient is thirsty and requests a glass of water but cannot make up his mind to take it when it is brought, although he wished to drink and his arm is not paralyzed. When Campanella, a celebrated philosopher and physiognomist, wished to know what was passing in the mind of another, he imitated as well as he could the attitude and countenance of the person in question, and at the same time concentrated his attention on his own emotions. Although hypnotism exhibitions are liable to produce nervous affections, yet it is now generally admitted that hypnotism offers the twofold advantage of enlarging and isolating the states of consciousness. M. W.

DISSOLVING VIEWS IN THE HISTORY OF JUDAISM. By Rabbi Solomon Schindler. Boston: Lee and Shepard.

In nature and history we may observe a process of dissolving views, such as an operator may throw by a magic lantern upon a screen. One creation fades away while the other rises into view. It was the plan of the author of this book to picture in every one of his lectures some prominent person of Jewish history, and all the Israelite heroes from Moses to Montefiore pass by before our eyes in a grand procession.

The spirit in which the book is written can best be characterized by a passage from the introduction, which is worth quoting at full length:

"It is no difficult task for an architect to erect a building upon a vacant lot. He can break the ground according to his plans, and even if he has to blast here and there a rock that crosses his way, or if, as upon made land, he has to drive a number of piles into the soft ground, such obstacles are easily surmounted,—his work can progress systematically, and the walls will rise up at an early day. A far more difficult task it is for him to remodel an old house, to build where something else stands already. It is slow work to tear down a foundation without harming that portion of the building which rests upon it, and, as in old buildings the cement has often become hardened to such a degree that the stones would rather crack than be lifted out of the layer of mortar by which they are held together, it requires the utmost caution not to destroy more than is desirable. If to-day a race of the human species could be found which, though intellectually ripened, has never heard of religion, it would be comparatively an easy task to teach such people a creed which would be purely itself and free from any admixture of superstition; religious reformers, however, do not find such a desirable material, they must take men as they are, they must build on ground upon which something else stands already, they are compelled to remodel old structures, to tear down on one side and to build up on the other. They find fre-

quently the most valuable material so deeply encrusted in errors, or errors so deeply imbedded in excellent material, that all efforts to separate them are hopeless, and the stones not seldom break before the mortar will yield.

"Right in the very foundation upon which the structure of religion is reared, we have come in our time to detect an error which must be removed before we can think of altering and improving the building. This error is so deeply and so firmly imbedded that it will require time and repeated and strenuous efforts to lift it from its sockets. It is the error that religion is something solid, something that has been settled long ago, something that, like Minerva, has sprung from the head of a God in perfect condition, and has remained perfect to this day. Every religious sect holds that for an unknown length of time all mankind has been sunk in superstition, that not a ray of light had pierced the spiritual darkness, until at last God had sent their own prophet as a messenger, and had revealed to them the only true religion. Since then, this religion has remained the same, and the same it must remain forever. Being perfect, the very thought of improving it becomes an absurdity, as improvement implies a state of imperfection. Every attempt to alter the original religion would be sacrilege, it would be followed by disastrous consequences, and must, therefore, be suppressed at whatever cost. At the same time such zealots do not know that their alleged original religion was an innovation at the time of its birth, and had been obstructed by exactly such zealots as they are.

"Whenever the question is raised, what is Judaism, Christianity, Mohammedanism, or Buddhism, the propounders of the question expect a short and definite answer; they suppose that these religions can be described like as many concrete objects, and they feel disappointed when evasive answers are forthcoming, when from a thousand persons they receive a thousand various explanations. The fact is that religion is not a firm substance which can be counted, weighed, or measured, but that it is something ethereal, that it has been and still is constantly changing its forms and ingredients, that it has been one thing at one period and another at some other time; that it is one thing to one man and a different thing to the next. The fault rests with us if we fail to see, or do not wish to see, that religious thoughts must have kept stride with the accumulation of experiences, that religion has been simply the formula by which every age has expressed its highest intellectual attainments. In a people of limited knowledge, with a narrow intellectual horizon, lofty religious principles can neither be found nor expected to be found, while a low standard of religion has always betrayed a low standard of civilization. Religion has followed as naturally the progress of humanity in arts, sciences, and experiences, as the shadow follows the movements of the sun on the dial. It is of all grave errors the gravest to presume that religion has fallen meteor-like from heaven, some thousand years ago, and has since then remained unchanged, and it is equally absurd to presume of Judaism that it could be defined or described in a few words, as if it had been the same thing at all times and to all generations. The genial town-folks of Schilda could sooner hope to catch the sunlight in a mouse-trap and to carry it into their windowless meeting-house, than we could hope to catch the volatile essence of Judaism within the wire grating of some definition."

IN THE POPULAR SCIENCE MONTHLY for June Mr. Spencer makes an incisive answer to the Duke of Argyll's criticisms of his views, which were published in the May number of the "Monthly." Professor W. Preyer discusses in the same number "The Imitative Faculty of Infants."

We call attention to the advertisement on the last page of this issue. We are in full sympathy with the *Ethical Record* and wish that the new publication may prove successful.



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XVI.—Continued.

The Historian now brought his daughter up to her and the worthy gentleman at last placed himself near Ilse and talked to her for a long time; she felt with pleasure that this was a great distinction. Afterward she ventured to move some steps from her place in order to ask the wife of Professor Raschke to sit by her. Thus, before long, a charming little circle of acquaintances collected about her. The pretty Frau Günther joked pleasantly and gave her explanations about the strange ladies and gentlemen. The wife of the Rector also came up and said she must sit near her, as she observed that all were so merry about her. And her "Ladyship" darted glances here and there which attracted one gentleman after another to the group; and all who wished to show their respect for her "Ladyship" paid their compliments also to the wife of the colleague. There was a coming and going all around her like a fair, and Ilse and her "Ladyship" sat there like two twin stars, the brilliancy of one increasing that of the other. All went well and charmingly. Ilse was delighted beyond measure, and there certainly was more shaking of hands in her vicinity than comports with the etiquette of a ball. When Felix approached her once and looked inquiringly at her, she pressed the tips of his fingers gently and gave him such a happy smile that he needed no further answer.

During a pause Ilse looked along the sides of the room and perceived the wife of Professor Struvelius on the opposite side. She wore a very dark dress and her Sappho lock hung seriously and sadly from her fine head. The wife of her husband's enemy looked pale and her eyes were quietly cast down. There was something in the bearing of the lady that moved Ilse's heart and she felt as if she must go over to her. She revolved in her mind whether Felix would think it right and was afraid of meeting with a cold objection; but at last she took heart and walked right across the room up to the learned lady.

She had no idea of the effect produced by this step. Ilse had attracted much more attention and had been much more sharply watched than she knew, and those present were more occupied with the quarrel between the two professors than she imagined. As she now went with firm step up to the other lady and stretched out her hand, even before she reached her, there was a remarkable stillness in the room and many eyes were directed to both ladies. The wife of Struvelius rose stiffly, descended one step from her seat, and looked so freezing that Ilse became nervous and could scarcely frame her lips even into the every-day inquiry after her health.

"I thank you," replied the lady. "I do not enjoy noisy gatherings. It is, perhaps, because I am entirely deficient in all the necessary qualifications, for people are only in the right place when they have an opportunity of making their talents in some way available."

"As to my talents, they will go for nothing," said Ilse, shyly; "but everything is new to me here and therefore it entertains me much to look on, and I would like to see everything."

"It is quite a different thing with you," replied the other, coldly.

Fortunately this embarrassed conversation was soon interrupted, for the wife of the Consistorial Councillor popped into the group like a curious magpie in order to mediate philanthropically or to take a part in this startling scene. She broke into the conversation and talked for a short time on indifferent subjects.

Ilse returned to her place much chilled and a little discontented with herself. She had no reason for it. Little Frau Günther said to her gently:

"That was right, and I am much pleased with you."

Professor Raschke darted up to her and did not allude to it, but he called her constantly his dear Frau Collega. He asked her anxiously whether he could not bring her something good—tea or lemonade. He admiringly took the finely carved fan that Laura had pressed upon her from her hand and, in order to take care of it, placed it in the breast-pocket of his coat. Then he began to amuse her by telling her how, as a student, he had taught himself to dance in his own little room, in order to please his wife, and in the eagerness of the relation, he began to show Ilse the way in which he had privately learnt his first steps. As he was swinging round, the swansdown of the fan projected like a great feather out of his pocket, and a new dance beginning, the Professor was carried off through the whirling couples with Laura's fan.

It was only a few steps that Ilse had taken through the hall; but this little expression of independent will had gained her the good opinion of the University; for, if there had been some remarks upon her country manners, now, on the other hand, men and women agreed in acknowledging that she had heart and character.

According to old custom, the ball was here interrupted by a general repast. Worthy professors had already wandered beforehand into the neighboring room, peering at the laying of the table, and had carefully placed their cards in the places they reserved and arranged with the waiters about the wine. At last the whole company gathered about the table. When Ilse went on her husband's arm to her place, she asked, in a low tone:

"Was it right in me to go over there?"

And he replied, gravely:



"It was not wrong."

With this she was for the present obliged to be content.

During the supper the Rector proposed the first toast—"The Academical Society"—and the assembled gentlemen thought his slight allusion to friendly concord among the colleagues touched in an indelicate way on the burning question of the day. But this effect passed away immediately in other toasts, and Ilse remarked that the supper speeches here were carried on very differently to those in the Rollmaus family. One colleague after another clinked the glass; and how elegantly and intellectually they knew how to portray things with their hands behind their backs and looking coolly around, and alluding, in fine sentences, to the guests, the ladies and the rest of mankind. When the corks of the champagne popped, the eloquence became overpowering, and two professors even clinked their glasses at the same time. Then rose the Professor of History; all became still. He greeted the new members of the University—women as well as men—and Ilse saw that this applied to herself and looked down on her plate. But she grew alarmed when she found that he became more personal, and at last her own name, as well as that of the wife of the Mineralogist, who was sitting by Felix, sounded through the room. "The glasses resounded, a flourish of trumpets was blown, many colleagues and some of the ladies arose and proceeded with their glasses toward them." A little procession took place behind the chairs, and Ilse and the Mineralogist's wife had to clink their glasses incessantly, to bow and return thanks. When Ilse rose blushing for this purpose, her eyes glanced involuntarily to the next table, where the wife of Struvelius was sitting opposite, and she observed that the latter half moved her hand toward her glass, then quickly drew it back, and looked gloomily down.

The company rose, and now the hilarity began in good earnest, for the Professors became lively, and called to mind their old agility. There was a changed aspect in the room, for soon even respectable, middle-aged gentlemen waltzed with their own wives. Oh, it was a cheering and touching spectacle to Ilse! Many an old dress-coat and clumsy boot moved to the measure; and many of the gentlemen danced with various slidings of the feet, and bold movements of the knees, determined to recall the style of their youthful days, and with the feeling that they still understood the art. Some of the ladies clung shyly to the arms of the dancers, some were ungraceful in their movements, others showed how well they were able to govern at home,—for, when the husbands were not sufficiently practiced in the art, they knew how to carry them round the circle with vigorous swings. The Rector danced very neatly with his chubby wife, and Raschke danced with his

wife, and looked triumphantly toward Ilse. The noisy merriment increased; all Ilse's neighbors were carried away by the excitement, and commenced waltzing. And Ilse stood looking on not far from a pillar. Somebody came behind and touched her; there was a rustling of a silk dress, and the wife of Struvelius approached her.

Ilse looked startled at the large grey eyes of the opponent, who began slowly:

"I take you to be noble-minded, and quite incapable of any mean feeling."

Ilse bowed slightly, in order to express her thanks for the unexpected declaration.

"I go about," continued Frau Struvelius, in her measured way, "as if a curse were on me. What I have suffered the last few weeks is unutterable; this evening I feel like an outcast in this joyous gathering." Her hand trembled, but she continued, in a monotonous tone: "My husband is innocent, and is convinced that he is right in the main. It is fitting for me, as his wife, to share his views and his fate; but I see him inwardly disturbed by an unfortunate entanglement, and I perceive with dismay that he may lose the good opinion of his most intimate friends, if he should not succeed in dispelling the suspicions which gather about his head. Help me!" she cried, with a sudden outburst, wringing her hands, while two big tears rolled down her cheeks.

"How can I do that?" asked Ilse.

"There is a secret in the affair," continued Frau Struvelius: "my husband was incautious enough to promise unconditional silence, and his word is sacred to him; he is a child in matters of business, and is quite at a loss what to do in this affair. What may be necessary to justify him must be sought without his knowledge or co-operation. I beg of you not to refuse your assistance."

"I can do nothing that my husband would disapprove of, and I have never kept a secret from him," replied Ilse, seriously.

"I desire nothing that the strictest judgment could condemn," continued the other. "Your husband must be the first to know whatever I may be able to ascertain, and therefore I apply to you. Ah! not only on that account; I know no one whom I can trust. What I now tell you I have not learnt from Struvelius: he received the unfortunate parchment from Magister Knips, and he returned it to him."

"Is that the little Magister in our street?" inquired Ilse.

"The same. I must induce him to produce the parchment again, or to tell me where it is to be found. But this is not a place to discuss this matter," she exclaimed, as the music ceased. "Situated as our husbands now are, I cannot visit you; it would be too painful to me, should I meet your husband, to feel his altered demeanor; but I wish for your advice, and beg of you to allow me to meet you at some other place."



"If Magister Knips is concerned in the matter," replied Ilse, with hesitation, "I would propose to you to come to the room of our landlord's daughter, Laura Hummel. We shall be undisturbed in her room, and she knows more of the Magister and his family than we do. But I fear we poor women can hardly accomplish much."

"I am determined to risk everything, in order to free my husband from the unworthy suspicion which threatens to be cast upon him. Prove yourself to be what you appear to me, and I will thank you on my knees."

She moved her hand convulsively, and then looked about her with an air of indifference.

"We shall meet to-morrow," replied Ilse; "so far, at least, I can agree to your wishes."

They then settled the hour.

Thus the ladies separated. From behind the pillar Frau Struvelius once more gazed imploringly at Ilse with her large eyes; then both were lost in the throng of the departing ball-guests.

After her return home, Ilse long continued to hear in her dreams the music of the dance, and saw strange men and women come to her bedside, and she laughed and wondered at the queer people, who chose to visit her now as she was lying in bed without her beautiful dress and fan. But in the midst of these pleasant musings she felt a secret anxiety as to what her Felix would say of all these visitors; and when she gently sighed over this anxiety, the dream floated back towards the ivory portals from whence it had come. She sank into a sound sleep.

The following morning Ilse went up to Laura and confided to her the events of the previous evening, and the request of Frau Struvelius. The secret meeting with the Professor's wife quite pleased Laura. She had for some time past more than once heard about the mysterious parchment at the tea-table. She thought the determination of Frau Struvelius very courageous, and spoke with contempt of anything that Magister Knips could contrive.

Just as the clock struck Frau Struvelius entered. She looked much oppressed, and one could perceive anxious excitement even through her immovable features.

Ilse shortened the unavoidable introductory compliments and excuses by beginning:

"I have told Fräulein Laura of your desire to obtain the parchment, and she is ready to send over directly for Magister Knips."

"That is far more than I had ventured to hope," said Frau Struvelius. "I had intended with your kind assistance to look him up myself."

"He shall come here," said Laura, decidedly, "and he shall answer for himself. I have always found him unendurable, although I have frequently bought pretty

pictures of him. His humility is such as does not become a man, and I consider him a sneak at heart."

The cook, Susan, was called, and despatched by Laura as a herald to the fortress of Knips.

"You are under no consideration to tell him that any one is with me, and when he comes, bring him up directly."

Susan returned with a sly look, and brought the Magister's compliments, and "he desired her to say he would have the honor of waiting upon her immediately. He seemed astonished, but pleased."

"He shall be astonished," exclaimed Laura.

The allied ladies sat down around the sofa-table, feeling the importance of the task which was before them.

"When I am talking with him," began Frau Struvelius, solemnly, "have the kindness to attend accurately to his answers, that you may in case of necessity repeat them, and thus be my supporters and witnesses."

"I can write quickly," exclaimed Laura; "I will write down what he answers, then he cannot deny it."

"That would be too much like a trial," interposed Ilse, "and will only make him suspicious."

The furious bark of a dog was heard outside.

"He is coming," said Frau Struvelius, drawing herself up with dignity.

A loud step was heard on the stairs, Susan opened the door, and Magister Knips entered. He did not look dangerous. He was a little crooked man; it was doubtful whether he was young or old. He had a pale face, prominent cheek-bones, on which were two red spots, screwed up eyes such as short-sighted people generally have, and red from much night-work by dull lamps. He stood there with his head bent on one side, in a threadbare coat, a humble servant, perhaps a victim of learning. When he saw the three ladies sitting, all stern and solemn, where his heart had only hoped to find one, and among them the wives of important men, he stopped confounded at the door; he composed himself, however, and made three low bows, probably one to each lady, but refrained from speaking.

"Sit down, Magister," began Laura, condescendingly, pointing to an empty chair opposite the sofa.

The Magister approached hesitatingly, pushed the chair further out of reach of the three goddesses of fate, and with another bow seated himself on the corner of the chair.

"It must be known to you, Magister," began Frau Struvelius, "that the last publication of my husband has occasioned discussions which have been painful to all engaged in them, and I assume also to you."

Knips made a piteous face, and dropped his head entirely on one shoulder.

"I now appeal to the interest which you take in the studies of my husband, and I appeal to your heart, when I beseech you to give me frankly and straight-



forwardly the information which must be desirable to us all."

She stopped; Knips, with bent head, looked askance at her, and also remained silent.

"I beg for an answer," said Frau Struvelius, emphatically.

"With all my heart," began Knips at last, with piping voice. "But I do not know what I have to answer to."

"My husband received from you the parchment which gave rise to his last treatise."

"Did the Professor tell you that?" asked Knips, still more piteously.

"No," answered Frau Struvelius; "but I heard you come, and I also heard that he promised to be silent about something, and when I entered his room later I saw the parchment lying on his table, and when I enquired about it, he said, 'that is a secret.'"

The Magister looked round about uneasily, and at last cast his eyes down on his knees, where his trousers were unusually threadbare and smooth from wear.

"If the Professor himself considers that the affair is a secret, it is not for me to speak of it, even if I did know anything about it."

"Then you refuse to give us the information?"

"Ah, my dear lady, there is no one to whom I would rather make a communication than to the excellent ladies whom I have the honor of seeing here, but I am much too insignificant to be able to serve you in this."

"And have you taken into consideration the embarrassing consequences of your refusal, for my husband, for the whole University, and—what you, an advocate of truth, must consider more important than all—for science?"

Knips acknowledged himself to be the advocate of truth.

Laura remarked that the examination was wandering into by-paths on which the parchment was not to be found; she jumped up, and cried out:

"Go out of the room for a little while, Magister Knips, I wish to confer with the Professor's wife."

Knips rose very readily and made a bow.

"But you must not go away. Go into the next room. Come, I shall call you in again directly."

Knips followed her with bowed head, and Laura came back on tiptoes and said, in a low tone:

"I have locked him in, that he may not escape."

The ladies put their heads together in close consultation.

"You deal too tenderly with him, Frau Struvelius," whispered Laura; "offer him some money, that will allure him. It is hard for me to say so, but I know the Knips family, they are selfish."

"I also have thought of that, for an extreme case,"

replied Frau Struvelius, "only I did not wish to hurt him by such an offer, if there were any manly feeling in him."

"Pshaw!" exclaimed Laura, "he is not a man, he is only a coward. If he refuse at first, offer him more. Here is my pocket-book; I beg of you to take it."

She ran to her writing-table and fetched out the embroidered purse.

"I thank you from my heart," whispered Frau Struvelius, taking out her purse from her pocket. "If there is only sufficient," she said, anxiously drawing the strings. "Let us see quickly how much we have."

"God forbid!" cried Laura, hastily. "It is full of gold."

"I have turned everything that I could into money," replied Frau Struvelius, hurriedly; "everything else is of little value."

She took the purses out of the hands of both ladies and said firmly:

"That is far too much. We ought not to offer him such sums; we do not know whether we should be exposing the poor man to the temptation of doing wrong. If we offer him money we embark in a transaction which we do not thoroughly understand."

The others disputed this, and there was much whispered consultation. At last Laura decided:

"He shall have two pieces of gold, that is settled."

(To be continued.)

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E. J. OSLAR, CLERK OF PUBLICATION COMMITTEE,  
P. O. Box 772, Philadelphia, Pa.

## THE OPEN COURT,

PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRESIDENT. DR. PAUL CARUS, EDITOR.

(Nixon Building, 175 La Salle Street.)

P. O. DRAWER F. CHICAGO, ILL.

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A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 40. (Vol. II.—14)

CHICAGO, MAY 31, 1888.

Two Dollars per Year.  
Single Copies, 20 cts.

## WHAT MIND IS.

BY PROFESSOR E. D. COPE.

The difficulties in the way of the acceptance of a belief in the control of mind over matter, arise, as is well known, from a consideration of the nature of matter and energy. It is idle to dismiss these difficulties in the easy way adopted by idealists and semi-idealists; for whether we know much or little about matter and energy, both unquestionably exist, and both have their immutable laws. Any treatment of the subject which does not embrace these prime factors, must be rejected by rational thinkers as inadequate.

To the absolute materialist, the known properties of matter and energy preclude the belief in a control of either by mind; and with the rejection of this belief we must abandon all ideas of persistency of mind, that is of the possibility of the immortality of consciousness, and of the existence of a primitive or supreme person. From this point of view it follows that with the disappearance of protoplasm from the universe, mind would disappear; and that the development and extension of mind depend on the production and distribution of protoplasm. But the facts of observation do not sustain this side of the question any better than they do the position of the idealists.

Nothing is better known than the fact that motions of the animal organism take place under the stimulus of conscious states, as of hunger, cold, fear, anger, etc.; and that those motions have direct reference to the sensations thus experienced. It is true that the proper relative motion to be made under the stimulus of a sensation, has to be learned by animals; but the stimulus is a sensation, and the experience gained is due to sensations. The memory involved is a mental sensation, and the general rules learned after much experience, are also mental sensations. Whatever the intrinsic relations between these classes of sensations may be, they all come under one general head, which, by common consent, is called consciousness. Of course the motions which take place with reference to conscious states are the movements of masses. These movements are due to releases of energy (as muscular contractility, supplied by nutrition, heat, etc.) set on foot by the nervous energy, or what represents it in the lowest animals. This energy,

as is well known, arises from the nervous centres, whence it has been released by energy of the sensory type, which is due to stimulus derived from some form of energy external to the body, either molecular (sound, etc.), or molar. As has been remarked, the outgoing motion has a rational relation to the incoming stimulus, and it is therefore believed that at some point in the process, and at some place in the organism, the direction of the outgoing energy is determined. The position of such direction has been more or less exactly ascertained by physiological research. The acts involving the greatest degree of intelligent design receive their stamp in the cerebral hemispheres, and as we retreat from this region backwards and downwards along the nervous axis, the outgoing motions are less and less intelligent in their character and more and more devoted to primitive and organic processes.

It is generally supposed both by physiology and by common thought, that an animal organism does, in the manner and at the place above defined, determine the course of the energy of motion, through an intrinsic property of its life, which is called *will*. This term is usually restricted to the direction of motions which display especial design, and which are performed during a conscious state, and especially to those which require some effort. Such acts are called "voluntary." Such acts, however, become, by repetition, "habitual;" and when thoroughly learned by the organism may be performed unconsciously, thus becoming "automatic," and "reflex." An act of will is not only a vital act, it is a mental act; for will is an aspect of mind. The point at which it can be no longer called mental as it enters the automatic stage, is not easily fixed. It is perhaps not a hard and fast line. We cannot enter on a discussion of this point here.

This "will" must not be confounded with "free will." The direction of energy which it signifies, is always strictly under the dominion of motives, which are also mental conditions, and which are themselves the result of experience. The lowest form of movements cannot be said to be due to any motive other than that of the agreeable sensation it produces; while the higher are due to most complex considerations, the resultant being the "strongest inducement." With "free-will" we have therefore nothing to do at present.



The will as above defined signifies a determination of the direction of energy (and therefore of matter) in accordance with the desires and designs of consciousness; that is, with reference to pleasure and pain, of lesser or greater degree. It does not mean that energy is created, but that it is directed or determined. Creation of energy is not possible under the law of conservation of energy. But it is also claimed that a direction of energy is equally impossible; and that it is as much in violation of the law of conservation of energy as would be its creation. If we treat this question scientifically, however, we must, I think, be led to a different conclusion. It is simply impossible to explain the movements of animals and men in any other way than by the usual supposition that they control these movements by mental process, in response to stimuli from without or within. We have no reason to believe that designed acts were first learned in unconsciousness, and that consciousness merely observes that they are being performed. We know on the contrary that designed acts *have to be learned*, and that the condition of learning is attention, which is a high degree of consciousness. To secure this attention stimulation of consciousness must be employed, as is well known in the breaking and training of animals, and the education of children. In any case, *effort* is necessary. This is an exercise of will by which the attention of the mind is directed to and kept on the matter to be learned. Among animals in a wild state, the environment furnishes the stimulation, and with the consciousness and memory which they undoubtedly possess, their education has gone steadily forward from the dawn of life to the present day. As I have elsewhere remarked, this education has formed their habits, and thus directed their movements, conscious and unconscious; and these have led the changes in their structure, causing the phenomena of evolution.

We may better realize the directive character of consciousness, so far as it can be realized, by expressing the fact as I have done\* in the language, "that energy may be conscious." This relieves us of the dualistic idea, that a something (consciousness) can exist apart from energy and matter, and influence them from the outside. This is not the state of the case. The situation is monistic; matter and energy *may be conscious*, and remain so under proper conditions. Under certain other conditions this attribute disappears.

We are now prepared to consider the nature of the act of will. This must be done under its two aspects, the automatic and the truly voluntary. In the case of designed acts which are automatic, the reason for the automatism is known to be due to the existence of a completed mechanism through which the energy passes

from the primary stimulus to the outcome in action. It must be remembered, however, that this result has come about through education, which consists of various more or less successful attempts to accomplish the design, until final success is reached. Failure to execute an act when first attempted, does not preclude the idea of the control of the mind over the material of the body, but proves that the correct mode of accomplishing the result has to be learned. The control consists in the construction of molecular mechanism by which the act is ultimately performed without effort of consciousness. This is the history of the origin of the innumerable "automatic voluntary" acts of animals, and it is probable that all the reflex and organic activities, except those that are purely physical and chemical, may have had their origin in this way in the long past ages of geologic time.

Will, then, as a mental *act* directed towards the non-mental environment of the mind, controls the movements (energy) of that environment. This statement may be called occultism, and I suppose, justly. But such is the fact, and in that fact we perceive one of the especial characteristics of mind as compared with energy and matter. The act of willing consumes energy, but the direction given to the execution by that will has no mechanical equivalent. Now, this fact harmonizes perfectly with another fact of mental action, which illustrates and enforces the doctrine here defended. Acts of will are dependent for their character on mental *motives* which may have been of long or brief presence in the mind prior to the act. Motives are the product of emotional or intelligent states, or more usually of both in co-operation. Now, the mechanical equivalent of thought-processes cannot be a measure of the content of the thought-process. I have expressed this proposition in the following general form: "The *amount* of thought can most assuredly be measured; the *quality* of thought can not." \* The motive is a judgment or preference resulting from the emotional or rational state, or both; and it is evident that though every act of judging or preferring costs energy, the mental considerations involved in forming such judgments and preferences cannot be expressed in terms of energy. In other words consciousness has a field of its own where it ranges free from the bonds of energy. And out of this field issues the will, which is the act of coercion of that which is outside the field of mind.

The occult relations of mind to matter then are two; first, in the acts of will; second in the acts of reaching judgments or motives. It is evident that both before and after the construction of automatic mechanisms, occasions for decisions between alternatives arise. Where mechanisms exist, this means

\* Origin of the Fittest; Art. Catagenesis, p. 328.

\* Proceedings American Philosophical Society, 1891, Origin of Fittest, p. 205.



a choice as to which of two or more of them shall be used to accomplish a given result. An animal which is pursued by another, may run into a hole or may ascend a tree for safety. In the two cases totally different muscles are used. The animal, *for reasons*, elects to use the one set rather than the other set. Another animal may throw one ear forward to catch a sound rather than the other ear. Mechanisms to accomplish the movement of both exist. In this case the animal *directs* the energy to one set of muscles rather than to another. Or an animal will use both ears alternately, or turn the head from side to side, to hear and see what is behind, each time choosing which muscles it will move. This is the common will of the animal, acting from the simplest of motives, not free, of course, but none the less a remarkable property of protoplasm, conscious and unconscious. No inorganic machine can do this.

The question now arises, what relation do these decisions bear to the amount of energy expended in the resulting act? A physical movement costs energy, and a mental act costs energy. The act of willing costs energy, and the more perfectly the act is performed, and the method of doing it is understood, the more perfectly is the energy consumed in those processes, and the less dissipated as heat. But does the decision to use the left hand, eye, or ear cost more or less than the decision to use those of the opposite side? Evidently not. Does the decision to climb a tree cost more than the decision to enter a hole? I venture to say that it costs a man no more to decide to build a house, than to decide to stand a brick on end, so far as the act itself is concerned. It is true that the process of reaching one motive may cost more than the process of reaching another, on account of the greater number of elements or questions involved in one than are in the other. But the rational relation of the conclusion to the premises is a question of consciousness all the way through. And the conclusions are reached for sensational reasons, not mechanical ones; but even in the latter case the fact of a conclusion being reached for "reasons" places it outside of the mechanical category. It is an extra-physical process.

The reason why the control of mind over energetic matter is so limited in our experience, appears to be, that the primitive elements of mind, sensation, and memory, are qualitative as well as quantitative equivalents of energy. The qualitative relation of memory to energy is, however, very remarkable. Its precision appears to be in *inverse* ratio to the strength of the sensory impression. In other words the more violent the impression the less exactly is the sensation reproduced; while the more delicate and refined the sensation the more certainly can it be reproduced.

Violent pleasures and pains cannot be reproduced in memory. The sensations of the special senses can be feebly reproduced in some persons; sight more perfectly than any of the others. Emotions may be reproduced by memory, but in a weakened form. It is only purely intellectual processes that are exactly reproduced both as to character and intensity. These facts\* lead us to suspect that strong sensations destroy the physical basis of memory. It is also evident that as memory is a part of the rational processes, it persists in a physical basis whose sensations are the least obtrusive, although of the highest importance; a physical basis to which ordinary sensation is conveyed rather as a matter of information than as a present fact. In fact every kind of conscious tissue has a memory of its own function, and the highest form, that which reasons, has information of the sensations of all the rest. Whether memory has any occult functions may be questioned, but it must be remembered that generalization is impossible without it.

Thus we have reached the important conclusion that all matter which performs designed acts, exhibits a metaphysical quality which is not correlated with the quantity of energy it expends in so acting. It is by virtue of this quality that mind gives direction to energy, and therefore to matter, without violating the law of conservation of energy. This is impossible on any dualistic conception of these relations. Quantitatively, mental processes are an expression of energy; qualitatively (purely), they are not, and the directive element in mind belongs to the qualities and not to the quantities. This is perhaps the most important fact which can be known to man. It embraces in its scope the general relation of mind to the Universe, both as master and servant of matter, and is full of promise of future growth. It shows us what Mind is, and that while it cannot violate the axiomatic properties of matter, it has control enough to make its existence good rather than evil.

#### ECONOMIC CONFERENCES.

II.

BY WHEELBARROW.

"This is Daniel in the lions den," said the showman, "and you will observe that Daniel doesn't care a copper cent for the lions; and by looking closer you will notice that the lions don't care for Daniel." A good resemblance to Daniel was Mr. Lyman J. Gage, confronting the working men at the Madison Street Theatre, and showing them the beneficence of National Banks. A very good resemblance to the lions was the eager crowd glaring upon him and waiting to devour him. To the credit of both parties be it said that neither was afraid of the other.

\* I have enumerated them in the *American Naturalist* for 1886, p. 83.



It was only natural that we should gaze with curiosity, if not with awe, at a living millionaire, that abnormal development of American equality; that we should wonder how he lived, and on what meat he fed. I always feel exhilarated when I hear a courageous man defend his own opinions, whether I agree with him or not; and it was like a wholesome tonic to hear a National banker before a hostile audience maintain the just and useful character of his trade. Some of the crowd were disappointed when they looked for the cunning eye and hard features which are said to be types of millionaire faces in Chicago. This man's face was refined, if not strong, and classic rather than coarse. A gentle presence is of great importance to a speaker, and good looks often help lame logic.

Some high-caste ladies "graced" the boxes, but their presence was too evidently a condescension. Like the rich woman who confessed that she once went out as far as Evanston "to see the peasantry," those ladies had come to see the laborers of a great city in economic conference with a banker. They looked down upon us very much as the patrician wives of Rome looked down from the boxes in the Coliseum upon the plebeians below.

Mr. Gage advocated our present banking system as a necessary and valuable ingredient in American social organization, and in this he was right, if the prevailing conditions that encompass labor, trade, and capital, are natural, just and wise. A large majority of his audience, however, believe that the National Banking System is an eruption on the surface of society indicating impurities within, and this impression Mr. Gage did little to remove. He reasoned thus: Exchange of products is a good thing, banking facilitates exchange of products, therefore the *National Bank System* is good. I see a fallacy in this reasoning although I may not be able to separate it from the tangle of the argument. I have heard the war praised by stump orators in the same way. They said the National Banks provide a sound currency, because the notes are secured by national bonds, which are secured by national debt, made by national war. No war no debt, no debt no bonds, no bonds no banks, no banks no currency. I know this chain has a flaw in it although it appears to be sound.

Mr. Gage, instead of defending the National Bank System as a monopoly necessary to a safe currency maintained that it was no monopoly at all, and he gave us the dictionary meaning of the word monopoly. Working men care little about the etymology of a word, or the Latin or the Greek of it; we regard only the fact it expresses. It may be true that monopoly means the "sole power" to carry on a certain business, and that National Banks have no such power because any five men with fifty thousand dollars may

start a National Bank; nevertheless, if the law confers upon National Banks certain privileges which other banks have not, then to the full extent of those privileges they have a monopoly. I do not mean that every monopoly is mischievous because it is a monopoly, it may in fact be beneficial to the community, but this is what Mr. Gage ought to have shown to the working men.

When Mr. Gage gave us the catalogue of powers and privileges enjoyed by the National Banks, he forgot to mention the most important one of all, the exclusive right to issue currency. A prohibitory tax of ten per cent. upon the circulating notes of all private banks and bankers limits the issue of currency to the National Banks. The reason given for this is the duty of protecting the people from what is known as Wildcat banking, and I am inclined to think that the reason is a good one. I regret that Mr. Gage avoided this question, because the prejudice of the working men against the National Banks is largely built upon a misunderstanding of the "money power," given to the banks by the exclusive privilege to issue currency.

Although the title of his lecture was "Banking and the Social System," Mr. Gage made no attempt to show any moral agreement between the National Banks and our social system. The one part of his theme had no relation to the other. He spoke on the social question and he spoke well, but he has placed himself under the yoke of the political economists, and allowed himself to be awed by their portentous jargon and their stately axioms. He is a victim of the patent medicine men who profess the "contemptible science." They take a few accidental facts, generalize them into a principle, express this in a rotund formula, and then impose it upon everybody as an orthodox prescription. After comparing the labor "trusts" and the capital "trusts," and showing that any unnatural profits made by either of them must result in drawing competitors to the trade or business in such numbers that the profits vanish, leaving the competition behind to plague the investors of the trust, Mr. Gage was betrayed into the mistake of wrapping up his whole argument in the ponderous old formula compiled by the medicine men about the rate of wages. He said, "the wages of labor will rise and fall as the number of wage-workers increases or diminishes in relation to the existing quantity of capital. If capital increase in a greater ratio than the population, wages will rise. If the population increase in a faster ratio than capital, wages will fall. No combination can long resist the silent but irresistible influence of this principle."

I think there is no such principle, and the claim for it appears to have no foundation except an occa-



sional example. We see it verified in particular cases, and erroneously think that it is of universal application. I am often stunned by the heavy maxims thrown at me by the economists, and before I have time to recover my senses I have confessed their claim. Long ago I was confused by this maxim, but when I brought a little moral intelligence to bear on it, I saw that its character was bad, and as it was unsound in ethics I knew that it was unsound in politics too. Out of it grows the arrogant theory of a "surplus population," the surplus being always the unemployed poor, and never the unemployed rich. Out of it grows the cannibalistic doctrine that working men must eat one another or perish. It makes every wage-worker the competitor and the enemy of every other. It elevates war to the dignity of a moral science because it kills men and diminishes the number of wage-workers. Capital never makes wages except for its own profit, population makes wages by creating a demand for supplies. Very often the wage-worker creates the capital before he can draw any share of it as wages. Like a pin in a toy balloon one touch of reality explodes the whole doctrine and reduces it to collapse. Let us apply the pin to the air-balloon sent up by Mr. Gage, "if capital increase in a greater ratio than the population, wages will rise."

In 1884, Mr. Blaine, in a carefully prepared paper, said that the capital of the United States had increased from fourteen thousand million dollars in 1860, to forty-four thousand million dollars in 1880. An increase of thirty thousand million dollars in twenty years, although during four years of that time the wealth of the nation was wasted in war, and wage-workers were killed by the thousands. Does not the touch of this one statement explode the balloon? Will Mr. Gage pretend that wages increased in the ratio of increased capital, even allowing that it increased at all? His formula might be correct if amended thus: "If capital increase in a greater ratio than the population wages *ought* to rise." His proposition fails because there is no power in social economics to compel capital to pay high wages, but population is driven by natural forces to make wages because men must eat, wear clothes, and live in houses. To provide for its own comfortable existence population sets all the wheels of industry in motion. The workers create the capital, and we invent an economic contradiction when we make increased capital attendant on the diminished number of the people who produce it. Men are driven to supply their own wants by labor, and thus make wages for each other. The reason they do not make high wages is because their energies are not free; artificial obstructions are placed in the way of industrial ambition; the worker's natural resources are withheld from him by law, and that "increased

capital" which Mr. Gage thinks raises wages, is combined successfully in a hundred ways for the purpose of keeping wages down.

Because the working men themselves have been led into many follies and some crimes through their belief in Mr. Gage's doctrine, I wish to show its influence on them. It did more than any other article in Labor's creed to freeze up the sympathies of the English working men. We were always praying for war so that "capital might increase in a greater ratio than population." When cholera swept the land we saw the triumph of Mr. Gage's principle and rejoiced. When a colliery explosion killed two hundred men, although we felt actual sorrow, there was mingled with our grief some abstract joy, for the ratio of population to capital was lessened, and we had fewer competitors in the labor market. This false economics hardened our hearts and debased our character. How could there be brotherhood among men who believed they were taking bread from one another? I was cured of the doctrine by an old farmer in Vermont, and I cheerfully advertise his recipe.

Shortly after landing in this country I got a job of work in building a railroad near the town of Windsor in that State, and the digging was very hard. One day we were knocked off on account of rain, and I put in the day doing chores for a farmer whose house was close to the shanty where I lived. That night he gave me a good supper, and after supper we sat outside on the door step and "calmly smoked and jawed." I felt that I was an intruder upon the United States because I was adding one more to the labor population, and diminishing the rate of wages in that "ratio." My farmer friend was polite enough to say that no apologies were necessary, and that the obligation was all on the other side; that in point of fact the United States of America was much indebted to me for coming. "I reckon you," he said, "as a clear gain of one thousand dollars to the capital of the country." This wild heresy bewildered me, and I explained to him that I did not bring five cents with me to buy a welcome, but he insisted that brawn and brain were part of a nation's capital, and the source of all its capital, that population and capital must increase and diminish together, and that they were not antagonistic factors in fixing the rate of wages. I see now that he was right, although I did not see it then; and while particular exceptions to his principle may be found in actual business, yet I am convinced that when applied to the vast aggregate of the nation including all its population and all its capital, his doctrine is morally and politically sound.

I follow the old man's argument as well as I can; it was something like this: A healthy young man of twenty, working on the railroad, receives as wages



one dollar a day. Allowing for loss of time by reason of rainy days and other causes, and giving him two hundred and fifty days work in a year, he receives in ten years two thousand five hundred dollars. His work is worth more than that. He has certainly put three thousand five hundred dollars into the railroad values of the country. This is a contribution of one thousand dollars to the capital of the nation in ten years. This rule will apply to all the other workers, and Mr. Blaine's figures are evidence that the estimate is low. Admitting that large numbers of men are a loss instead of a gain, that they eat more than they earn, nevertheless, when the national balance is struck the result is an enormous aggregate gain. Another test is this. Every generation leaves behind it something for the succeeding one, proving that increase of population and increase of capital are in direct proportion to each other, and that the relations between them are not to be estimated by the Inverse Rule of Three.

I once heard a judge tell a lawyer that statutes are to be construed in favor of human life. This rule extends beyond human codes. It is the law of the moral universe, and political economy cannot reverse it. The doctrine quoted by Mr. Gage is in favor of human death. It makes living men a dead weight upon the public weal, a dangerous paradox. What does Mr. Gage himself say in refutation of his doctrine? He says this: "With a population of sixty millions this country is sparsely settled, and will support under good industrial conditions two or three hundred millions in peace and plenty." Why then does he moralize about imprudent marriages and a redundant population? In that one sentence he surrendered himself a prisoner to Mr. Schilling. If the country possesses the abundant natural advantages which Mr. Gage describes, why are a million wage-workers out of work? If the country is "sparsely settled," why do men jostle each other and suffocate each other in the labor market? If "the treasures of mineral wealth beneath the surface are inexhaustible," why is not their opulence developed? Is it not because capital owns the key of the underground cellar and keeps it locked from labor? Mr. Gage's admission that the country is sparsely settled while its natural resources are inexhaustible was a strong support to the claim of Mr. Schilling that labor shall be given access to the surface of the earth, to the forests upon it and to the minerals below.

When Mr. Gage advocated "co-operation industrial and otherwise" as a social remedy, there was loud applause in the pit and in the gallery, as if he had just condescended to patronize one of the absolute virtues such as temperance, honesty, industry, or brotherly love. Perhaps the most elastic and changeable bit of sham in the labor debate is the "co-opera-

tion" excuse for the mistakes and offenses of "organized capital" and "organized labor." Co-operation is not a principle, it never was anything but an expedient, a plan, sometimes wise and sometimes not; sometimes good and sometimes bad. It may be virtuous or not, according to its purpose and its action. What do you co-operate for? is the test question that must be answered by the Knights of Capital, and by the Knights of Labor, and upon the answer the quality and value of the co-operation must depend. The co-operation of the Knights of Capital to develop coal mines and bring the coal to Chicago is beneficial, but the co-operation of Knights of Capital to raise the price of coal is mischievous. The co-operation of the Knights of Labor to raise their own wages is good; their co-operation to lower the wages of other men is bad. The co-operation of the Knights of Capital to boycott their workmen who refuse to "sign the document," is tyrannical and unjust; the co-operation of the Knights of Labor to boycott the craftsmen who decline to sign their document, is equally tyrannical. Co-operation is good only so far as its aims and methods are generous and just.

In my youth I received some benefit through the efforts of a benevolent society for the education of the poor. It is very gratifying to me that I have lived to return the favor. Two months ago I had the honor to organize in the City of Chicago a society for the education of the rich. The pupils are becoming numerous, but we hope to have schools large enough to accommodate them all. It is a melancholy sight to see so many ignorant rich, destitute of proper instruction, rushing blindly downward "without God and without hope in the world."

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.

BY FELIX L. OSWALD, M. D.

Part VIII.  
HABIT.

"Whatever is pleasant is wrong," summarizes the distinctive tenets of a creed which has for centuries biased the ethics of the Aryan nations, and found its fullest expression in the asceticism of the Buddhist world-renouncers. The charge of impious ingratitude fails to influence the converts of a doctrine which supplements the belief in the total depravity of the material world with the dogmas of supernaturalism, and transfers its hopes from the disappointments of the present to the unalloyed beatitude of a future existence.

"That doctrine," says a champion of Utilitarian ethics, "is a mere survival of demonism, involving a belief in a system of creation so diabolically arranged that all its sweets are secret poisons and its pleasures nothing but baited traps."



"Nothing else," would be the orthodox reply, for the world is the devil's own."

But the belief in the sinfulness of temporal gratifications implies the logical converse of making the avoidance of pleasure a habitual rule of conduct, and thus demonstrates the self-contradicting absurdity of anti-naturalism, since by the influence of habit the sources of affliction tend to become sources of enjoyment. Instinctive preferences and aversions are merely the outcome of ancestral modes of life, continued through a long series of generations; and the origin of our so-called moral intuitions is strikingly illustrated by the influence of personal habits.

The short average life-term of our latter-day generations suffices to turn the habitual performance of irksome duties into a matter of spontaneous preference: A path of routine, pursued at first in quest of remote and indirect benefits, eventually produces its own daily and direct rewards. Acts, often repeated in defiance of instinct and conscience, are soon performed with callous indifference, and at last even with positive predilection. The Spanish conquerors of the New World employed a species of bloodhounds descended from the gaunt shepherd-dogs of the Spanish sierras, and in spite of their reckless courage, at first extremely reluctant to "use their fangs on the image of God," as Las Casas expresses it. They had to be whipped and bullied into compliance with the commands of their ruthless masters, but after a certain amount of practice would follow the trail of an Indian as their ancestors had followed the trail of a wolf, and at last came to prefer a man-hunt to every other kind of sport. The first sight of a slaughter-house inspires a child with an instinctive horror which has often been used as an eloquent argument in favor of vegetarian theories. During an Easter picnic in the mountains of Puebla, Mexico, I saw a little boy run shrieking from the side of a cook who had just cut the throat of a kid; and failing to engage the sympathy of the jeering bystanders, the emotional youngster flung himself down at the foot of a tree, and for nearly an hour hugged a pet poodle-dog with convulsive sobs. Hindus will starve for weeks, rather than imbrue their hands in the blood of a fellow-creature and shudder at the mere sight of a meat-axe.

Yet our professional butchers so thoroughly overcome that natural horror, that the veterans of our slaughterhouses may often be seen smoking their pipes or whistling a pleasant tune while their hands are shedding continuous streams of gore. With a similar indifference the overseers of the Cuban slave-plantations ply their cruel whips; and I have known army-surgeons, who performed the ghastly work of the operation-table with all the equanimity of a professional wood-carver. Even military homicide, the most dreadful

of all duties, may become a pleasant pastime, and I may confidently appeal to the experience of all veteran soldiers, if I say that every protracted war develops a certain percentage of amateur manslaughterers who, fight for carnage, rather than for conquest, and survey the hecatombs of a bloody battlefield very much as a sportsman would examine the trophies of a successful *battue*. Ali Pashaw, the Turkish Mithridates, seems to have rather encouraged that disposition in his followers, and had regiments who "howled for battle," quite irrespective of political or religious animosities. Suwaroff, too, had whole companies of such man-butchers, and confessed that on several occasions (as during the capture of Ismael) he would not have *dared* to check their fury of slaughter.

"Ein Schlachten war's, nicht eine Schlacht zu nennen," —and during the age of hand to hand conflicts battles often enough ended with the total destruction of the vanquished army, as on the fatal field of Xeres de la Frontera, where the *tukbeer*, the victory-shout of the Moslem fanatics, gave the signal for a remorseless massacre of the Gothic host.

Still more numerous is that class of routine-soldiers who learn to plan and practice the wholesale destruction of human life as a common trade, and go through the routine of flanking and routing a hostile force with absolute disregard of collateral consequences. "The first sight of a dismembered horse," said an old artillery-officer of my acquaintance, "gave me a sort of physical pain; it seemed to twist my heart, as well as my stomach; and I turned away with the impression that I should never get used to the spectacle of mangled human bodies. After a while, though, military murder became a mere problem of target-practice. During the last engagement of our battery, when I saw forty men go down at a single discharge, I remember that my only emotion was a professional regret that the scattering of a Gatling-gun volley could not be confined to a horizontal plane of distribution."

Repeated experience still more strangely steels the heart against the symptoms of mental agony which at first appeal so irresistibly to the sympathies of a compassionate soul. In a contribution to *THE OPEN COURT* (Vol. I, No. 5,) Prof. James Parton describes his unspeakable anguish on witnessing the grief of a poor mother whose only son was forced to bid his native land a long farewell; but in the minds of veteran jailers and bailiffs far more harrowing scenes excite only a circumstantial interest. "If you have anything like human hearts," said the sister of a condemned deserter, "let me see my poor brother's face once more; he is the only friend I ever had in this world, and I have traveled forty miles afoot to tell him good-bye."



"Wonder if she's going to slip him a file?" whispered the old turnkey.

In times of protracted public calamities that moral callousness becomes more general, and in the famine-stricken cities of China and Hindostan whole families have often starved to death in the public streets at the very door of the charity-commissioner who contents himself with entering their names in his district book and deducting the daily sum of corpses with all the opium-smoking complacency of a cattle-yard inspector.

Under the influence of habit the virtue of industry is gradually becoming a secondary instinct, and in many cases assumes the force of a controlling passion. In the neighborhood of Santiago, Cuba, I once saw an old mare walking slowly in a circle which by a long series of circuits had been worn into a glassless ring. There was no driver near, nor any visible motive for exertion, but the old nag turned and turned with indefatigable patience. "It's a mill-horse," explained my guide, "one of those old plantation hacks that are turning the machinery of the sugar-mills. She has tramped her rounds till she got too old to work a mill, but the habit sticks to her bones, so she now turns around in the open prairie."

To a country-boy, fresh from the sports of his native woodlands and mountains, office-work is, no doubt, as irksome as tread-mill work to an unbroken colt; yet our large cities abound with men to whom industry, in some form or other, has become a daily condition of happiness. I know an ex-registrar who in his old days fell heir to a snug fortune, and retired to the country for the avowed purpose of passing his last years in peace. But that "peace" proved less supportable than his wonted drudgery. Entertaining literature disagreed with his mental organism; social diversions failed to banish the demon of *ennui*, and, after sundry compromise plans, the proprietor of a fine country-seat volunteered the functions of an assistant postmaster, and regained his peace of mind in the elaboration of monthly reports and the double-entry records of registered mail.

The habitual exertion of physical energy is apt to make a less laborious mode of life unendurably insipid. There are men who fell trees and break horses from sheer force of old habit. "I've tried hot-house gardening," a retired back-woods farmer told me a year after his removal to his new city-home; "but, hang it, it seems too much like play to stand it in the long run. I'm going to try landscape gardening and haul up a few hundred good-sized shade-trees."

Under the inspiration of a similar impulse Elihu Burritt, the "learned blacksmith," would every now and then fling his grammars aside and make a grab for his sledge-hammer. Edmond About mentions a re-

tired guerilla-leader who used to inveigh against the immoral sloth of garrison-life; and there is no doubt that moral, rather than financial, considerations induce hundreds of business-men to prefer the drudgery of their counting-rooms to the elegant leisure of a bondholder's life.

Even with such qualifications as the pursuit of knowledge or gain, indoor life remains, at best, an unnatural mode of existence; but the power of habit goes further, and has more than once impelled pardoned prisoners to decline the boon of freedom, and return to the brooding inactivity of their dungeons.

#### PERSONAL IMMORTALITY.

There is nothing so pleasing to human expectation as personal immortality. To be assured of everlasting life without pain or care, without weariness or satiety, with friendships unalloyed and with knowledge ever increasing, makes all trouble and sorrow in this world seem as nothing—as the mere dust that floats with the passing breeze. But is this pleasing dream an inspiration? Do desire and expectation constitute an infallible premise upon which to found unquestionable opinions? And is there adequate compensation for the loss of these cherished ideals?

Man's body, like those of other animals, is composed of the elements of matter in chemical combination, and finally after its brief life, returns to form part of the original stock from which it was constructed. Does there dwell in this corruptible body an undying and incorruptible personality? Does the Creator do aught contrary to the universal and recognized laws of life and death? And is it not generally conceded that anything and everything that will live "to eternity" has existed "from eternity?"

The glorious sun must, in the nature of things, go out in darkness. The stars that "glitter on the mantle of night" must finally disappear. There may be a new birth of suns and stars, resultant from the same cause which placed those now shining in the heavens, and thus, by renewal, add light and lustre to the universe through a seeming eternity. So with all animate and inanimate life; it is immortal in the principle of reproduction, whose cycles roll on unceasingly unless checked by superior and antagonizing forces. Reproduction is therefore an immortal principle precluding the probability of personal immortality. With life ends man's usefulness to the world or to his Creator. Is it probable that he will be preserved for pain or pleasure, for reward or punishment? The monarchs of the forest may be reproduced for an eternity of years with unchanged and recurring seasons.

The grain of wheat from Egypt's tomb lost none of its vitality during a sleep of three thousand years. The frail, sensitive plant is equally immortal in its nature.



If there is anything on earth too beautiful to die, it is the rose. Yet with all its beauty and fragrance the hoar frost regards it not, and the summer's sun, after painting its loveliness, withers it without remorse, and but for the hope inspired by this reproductive principle, we should mourn its loss and weep at its destruction. Now we can truly say and rejoice that its beauty never fades and its fragrance is everlasting.

Is man an exception to this wise and wonderful provision of nature? And is it not ample compensation to know that old age, decrepitude and uselessness are to give place to youth, strength and beauty, and that man's intelligence and virtues become an immortal inheritance by his children? E. H. ROOD.

—[*North American Review*.]

#### GUSTAV FREYTAG'S NOVEL, 'THE LOST MANUSCRIPT.'

A letter lately received from Gustav Freytag causes me to state that 'The Lost Manuscript' has not been written for the purpose of spreading philosophical or social ideas. The author's only intent has been to create poetry and to truly picture life.

All the more, his ideas on the most vital question of human existence (which are so fully supported by the recent studies of the French psychologists as to make them scientific facts) being a natural outflow of the poet's brain, will take possession of the reader who goes further than reading for entertainment.

EDWARD C. HEGELER.

#### THE NATURE OF MIND.

*Mind* denotes the whole spiritual nature of man; it comprises the domain of his thoughts and sentiments, the remembrance as well as the purpose of his intentions, and the whole frame of his character. The word is one of the oldest and most indigenous expressions of our language. We can trace its origin at least as far back as that of any other word, and find that for several thousand years its primary meaning has remained about the same. If it has varied now and then in its application, the general tenor of the word has scarcely changed at all. The Sanscrit *manas* is the Latin *mens*; it has been used by the ancient Aryans in the same sense as the English *mind*, and also the Greek *νους* has not strayed far from its etymology. The Anglo-Saxon *Gemynd* is derived from the word *munan*, 'to think,' which is still preserved in the German *meinen*, 'to have an opinion.' The root *MAN*, from which these words have sprung, is found also in the English *man*, 'a thinking being,' German *Mann*, *Mensch* (originally *männisch*, i. e., manish, or belonging to the kind of thinking beings). Other derivatives indicate that the original meaning of the root *MAN* must have been that of 'memory.' The Greek *μνησθαι* means 'to remember.' From *μνησθαι*,

'mindful, bearing in mind,' and *μνηστικός*, 'having the ability of bearing in mind,' we derive the word *Mnemonics*, by which we denote 'the art of assisting the memory.' The German *minnen*, 'to love,' is one of the most beautiful of words; it also is derived from the root *MAN*, and its etymological meaning may be best expressed as 'a cherishing in one's mind in faithful remembrance.'

The deity of mental phenomena among the Teutonic nations was *Wöden*. He was the God of the aerial sky. He moved in the breezes of the atmosphere and was a personification of the 'air in motion.' As such he naturally came to represent spiritual manifestations. Similarly the Latin *animus* (spirit) and *anima* (soul) are etymologically the same as the Greek *άνημος*, wind (from *άνημι*, Sanscrit *an*, 'to breathe, to blow'); and the Latin *spiritus*, 'breath' (from *spīrare*, 'to breathe') came to mean in modern French '*esprit*' and in English *spirit*, 'a ghost.'

The word *ghost* has a similar pedigree. Its equivalent in German is *Geist*, and if both are connected with the Sanscrit *ya*, 'to seethe,' Greek *ζωω*, 'to boil,' we must recognize in the German *Geist* and in the English *yeast* humbler cousins of the more aristocratic word *Geist*.

The Icelandic Edda tells us that Odhinn (*Wöden*) had two ravens about him who reported everything that happened in the world and were the messengers of his commands. Among the Teutonic nations the raven was looked upon, and perhaps with more justice than the owl in Athens, as the bird of learning. A raven is clever and can be taught to speak. His stern appearance, especially the simplicity of his black coat, seemed to suggest that he must be thoroughly versed in secret lore. When the monks of the Middle Ages changed *Wöden* into the Evil Spirit, the venerable birds of pagan scholarly divinity became companions of the devil and sad omens of ill luck.

The ravens of Wodan were called Hugin and Munin; Hugin means 'thought' and Munin 'recollection or memory.' 'Munin' is derived from the very same root as the Anglo-Saxon *munan* and the English *mind*, while Hugin (which is still preserved in the name *Hugo*) is apparently intended to indicate the faculty of invention, viz., the ability of the human mind to create new ideas by combining the old materials of our memory into novel forms.

The gist of all this is that our ancestors considered memory as the fundamental property of mind, and we cannot but admire their keen power of observation when modern physiology declares that memory is the fundamental property of organized matter.

The word *Mind* is very different from the word *spirit*. While *spirit* may be used in the sense of a bodiless hobgoblin which is nothing but spirit, mind



always signifies a spiritual or intellectual faculty in a corporeal being.

According to the customary usage of the word, *mind* can not be separated from matter. If it were possible to separate mind from the organized matter in which it appears, (as oxygen may be extracted from carbonic acid,) we would no longer call it mind but spirit; and very probably this special application of the word *mind* as a phenomenon of the organized matter in living bodies, has produced its extraordinary stability and has prevented vagaries which can be observed in the history of the words *spirit* and *ghost*.

Mind accordingly is not a concrete something as are material objects; mind is a phenomenon which is manifested in certain actions of organized matter. It does not exist by itself, but exists in and with those living bodies from which we have abstracted our notion of mind. Similarly life is no thing by itself, nor does it exist apart from living beings. Life and mind (like so many other concepts) are generalizations of certain properties, abstracted from reality in which under certain conditions they can be observed as phenomena.

The question 'whether mind controls matter' can be understood in two ways: Either it means that a thinking being by means of his ability to think can control the motion of matter in giving direction to a certain amount of energy, or it means that mind alone, as something by itself and apart from the organized matter in which it appears, can act upon and control matter. The former is a fact which cannot be doubted, and the latter is an impossibility, since we know that mind by itself does not exist.

Mind as it appears in reality is neither energy nor matter, but it is a special form of energy working in some organism. Form is the essential characteristic of mind. The human mind is as much superior to the animal mind as the structures of human brain are superior to those of animal brains. There is little or no difference in the chemical ingredients of the different brains, and the amount of energy expended is of secondary importance.

But there is a great difference in form, the human brain having more complex and some additional structures. Similarly the difference between more or less effective machines is one of form. Let us take for instance an old steam-engine of former years and one recently built with all the latest improvements. Both may have been constructed from the same materials, both may be furnished with the same amount of coal, developing a certain amount of heat for a certain time. The difference of material in both machines, which may exist, is of secondary importance; the chief and essential difference remains that of construction, which is a difference of form;—a difference

which enables the one to do more effective work than the other. It is the form of the cogs and wheels which directs the motion of the energy produced in the boiler.

The form of the gear in a machine, if considered as form alone, apart from the material of which the machine consists and apart from the heat which makes it work,—the mere form may exist as a plan in the brain of the draftsman or as a sketch on the canvass of the draftsman but as a working instrument the mere form does not exist in reality. The mere form cannot drive the wheels and produce energy; and mind, the mere abstract mind, cannot be said to have any effect upon matter or to direct energy. But mind, as we find it in reality, the mental activity of an organism, the bodily reality of which is recognizable in certain forms of living brain structures,—this mind directs energy and has a powerful influence upon matter.

The word Mind sometimes has been used in the sense of consciousness. According to our notion mind does not exclude unconscious mental activity, but it certainly includes all conscious thoughts and feelings. Consciousness accompanies certain acts of our brain. Whether consciousness consumes a certain amount of energy has not as yet been ascertained by psycho-physiological experiment, but it is certain that consciousness by itself is *no* effective factor in the motion of our limbs. This fact can be relied upon since it has been proved by careful investigation and experiment.

Th. Ribot in his "Diseases of Will" distinguishes two things in voluntary action; the mechanism that produces it and the state of consciousness that accompanies it. The instances which he cites prove beyond the shadow of a doubt that the mechanism can also work automatically without the accompaniment of consciousness; but consciousness has in itself no efficacy. We are told, e. g., that a man of a diseased will whose muscular motor-apparatus was sound, intended to take a glass of water for which he had called and which was offered on a tray by a servant. Although the patient struggled earnestly to show self-control, he was unable to let his will pass into action. From such and similar instances Th. Ribot concludes: The 'I will' shows that a state of consciousness exists, but this does not constitute the situation. The 'I will' is like the verdict of a jury by a consensus, in which perhaps after a longer deliberation the stronger motives overrule the weaker ones. But the execution of the verdict which in the sane man is effected without difficulty, can be produced only through the mechanism of the will. From this mechanism will derives its force, and if the mechanism is deranged, the execution of the will is prevented.\*

\* See OPEN COURT, p. 490, "Th. Ribot on Will."



Consciousness, although having in itself no efficiency for making will pass into act, cannot, for this reason, be considered as a superfluous element. There is nothing redundant in Nature; how could consciousness be a superfluous factor? Consciousness may be compared to a light. It affords in novel and difficult situations the possibility of circumspection. The light in a machine room will enable the attendant workman to regulate properly the motions of the engine; but the light has no locomotive power in itself which can produce action. If the engineer is a novice he cannot do his work without light, but the expert knows how to direct the lever even in the dark. The consciousness of mental states may be indispensable for a proper *direction* of our will, but it does not possess motive power.

We gladly notice in Professor Cope's essay that in many respects our scholarly contributor agrees with this view. He says: "We may better realize the directive character of consciousness, so far as it can be realized, by expressing the fact as I have done in the language, 'that energy may be conscious.' This relieves us of the dualistic idea, that a something (consciousness) can exist apart from energy and matter, and influence them from the outside. This is not the state of the case. The situation is monistic; matter and energy *may be conscious*, and remain so under proper conditions. Under certain other conditions this attribute disappears." And later on Prof. Cope declares that "the effort of accomplishing the result must be learned. The control consists in the construction of molecular mechanism by which the act is ultimately performed without effort of consciousness." We also fully agree with Professor Cope when he says: "The act of willing consumes energy, but the direction given to the execution by that will has no mechanical equivalent."

But we are at a loss how to conform this monistic view with other propositions which must be considered as unequivocal dualism. Although consciousness, it is maintained, does not exist apart from energy and matter, Professor Cope objects to the view "that with the disappearance of protoplasm from the universe, mind would disappear; and that the development and extension of mind depend on the production and distribution of protoplasm."

Protoplasm, it must be mentioned, means the living substance which is the basis of organic life. On other planets may be found other kinds of protoplasm, but we do not expect to find mind independent of living substance. Moreover, when Professor Cope speaks of "a primitive or supreme person," he can only mean a supernatural God, whom, as I judge from other publications of his, he considers as absolute mind.

With such contradictory statements it is natural that

Professor Cope ends in occultism. What he calls "a mental act" consists: first, of consciousness which has no motive power in itself, and second, of energy (act) which *is* motive power. Confounding the mental attitude of consciousness with the energy expended in acts, he declares: "Will, then, as a mental *act* directed towards the non-mental environment of the mind, controls the movements (energy) of that environment. This statement may be called occultism, and I suppose, justly. But such is the fact, and in that fact we perceive one of the especial characteristics of mind as compared with energy and matter."

If a question is answered in a manner which maintains the view of occultism, this is to my mind a certain sign that the problem is not yet solved. From the monistic standpoint as explained above, I can see no difficulty in the problem as to how (if properly understood) mind controls matter. It is true that there are many things which are not as yet understood, and which demand the careful observation of physiologists and psychologists, but there is no philosophical obscurity in the matter. Accordingly there is no need of any supposition which searches for an explanation outside this world of ours, and we are not driven to believe in "a metaphysic quality which is not correlated with the quantity of energy it expends in so acting."

From the dualistic standpoint which makes of mind a thing apart from matter and energy, the problem as to how mind controls matter (like so many others) must appear as a most occult and incomprehensible mystery. Dualism thus makes of a natural phenomenon "an extra-physical process."

P. C.

#### A NEW RELIGION.

BY \* \* \*

The Creeds of old are crumbling;  
And were their revelation  
The only hope in living  
Life would be desolation.  
But lo! a new religion  
Bursts from the germs decaying;  
A new faith in our bosoms  
Is growing, light-displaying.  
Great truths with broader outlook  
New missions have created.  
By purified Religion  
Our souls are elevated.  
New aims, new hopes, new doctrines,  
Old prophecies fulfilling!  
And through our hearts is rapture  
Of progress warmly thrilling.  
We have no holy scriptures,  
Our lore is not dogmatic;  
In vague spheres transcendental  
Our creed is not erratic.



We do not combat freedom  
Of art, nor that of science.  
Nay, both with our religion  
Are joined in firm alliance.

Though high, our aspiration  
Is yet concrete and real.  
To render life more noble  
Is our sublime ideal.

Of this denomination  
Are they, in life's confusion  
Who further human progress  
And sweep away illusion,

Who have ideals, dearer  
Than self and self-existence,  
And love them, although knowing  
Their vast, enormous distance;

Thinkers who muse and ponder,  
Instructors theoretic;  
And poets, whose ideas  
Are radiantly prophetic;

The warrior, who for Freedom  
Fights and for Freedom dieth;  
The great, whose noble fortune  
With their souls' greatness vieth;

The hand, who with heart's trouble  
For wife and children toileth;  
The man, who doth his duty  
E'en if his fate him foileth;

And he, who kindly comforts  
The sick, who gladly shareth  
His bread with his poor neighbor,  
Our badge and symbol beareth.

## BOOK REVIEWS.

QUEEN MONEY. By the Author of the *Story of Margaret Kent*.  
Boston: Ticknor & Co.

The success of the story of Margaret Kent raised high expectations of any subsequent work that might come from the same writer's pen, and Queen Money is a story that will help establish the name which the author has already so worthily won. It is a novel of New York society life, told with spirit and intelligence, utterly without plot, but showing unusual skill in characterization, containing many pages of bright and earnest dialogue and conveying a wholesome moral. As is inevitable in this class of novels we have the usual range of characters, in Ellery Kendal, the bold unscrupulous young broker, Clayton White, the accomplished man of letters and agreeable cynic, Fanny Brockway, a married flirt, Otto March, the high-souled young hero, Lucy Florian, the redeeming angel of them all, whom all the young men of the book fall in love with, but who reserves herself for the hero.

The portrait of the child Ethel, inheritor of a strange untamable nature, equally compounded of artistic longing, and a depraved aspiration to shine in society before fairly out of the nursery, is the most original character in the book, piquing curiosity as to her future development which her early death brings to a sudden halt.

C. P. W.

BONAVENTURE. A Prose Pastoral of Arcadian Louisiana. By George W. Cable. New York: 1888. Charles Scribner's Sons. The author of "The Grandisseries" and "Old Creole Days" has enriched American literature by another original work of his Southern Muse. "Bonaventure" is worthy of Mr. Cable's renown, and will, it is to be expected, still more enlarge the circle of his readers.

GIRARD'S WILL AND GIRARD COLLEGE THEOLOGY. By Richard B. Westbrook, D. D., LL. D. Philadelphia: 1888. Published by the author.

The chapters which make up this book were originally delivered, in substance, as popular lectures in the last spring course of *The Westbrook Free Lectureship* in the hall of our City Institute, and attracted considerable public attention at that time. The author of this book is not unfriendly to the Bible or to Christianity but he believes that their greatest enemies are those who unwittingly claim for them what they are not. As a theologian and lawyer, he thoroughly believes that the present system of religious instruction in Girard College is in palpable violation of the conditions of the Will of the Founder, and not well adapted to promote "the purest principles of morality." In the different chapters, the case is stated and the defence of the directors examined. The question whether sectarian dogmas are essential to morality is thoroughly discussed, and Mr. Westbrook's answer is summed up in one sentence: "Ethical culture is what Girard College needs." The appendix contains all the main clauses of Girard's Will (in part) and the opinion of the Supreme Court given in 1844 in the Girard Will Case.

In the *Revue Philosophique* for May, 1888, M. A. Binet discusses the problem of the muscular sense according to recent investigations of hysteria. Mr. Binet's result is purely negative. The observation of hysteria-patients does not furnish us with any fact which irrevocably demonstrates the existence of a muscular sense, producing a sensation concomitant with the current in the motor nerves. M. Charles Richet contributes an essay on 'Psychic Reflexes.' Social questions are treated by M. Ch. Secrétan who presents the advantageous and disadvantageous aspects of a normal working day in his essay, *La Journée normale*.

## NOTES.

The Sunday lectures of the Ethical Society of Chicago closed on the 27th inst. Gen. M. M. Trumbull spoke upon 'The Celebration of Decoration day.' His address was so powerful that even men present had difficulty in restraining the tears in their eyes. But this would have been no criterion for commendation, if the address had not at the same time been entirely free from sentimentality. It was a sober expression of the ethical conception in the custom of decorating the graves of our veterans. When the general had finished, Mr. Salter addressed the audience. He spoke of the issues at stake in times of peace, and especially of present dangers, resulting from corruption and a lack of true public spirit. We hope that we shall be able to publish the important passages from it in full. They deserve the attention of all well-meaning citizens throughout the country.

## OBITUARY.

M. Guyau, the author of several works on moral and religious topics, died on the 31st of March last, in Menton, France. His last work *L'irreligion de l'avenir* produced a great sensation in France as well as abroad, and made him the object of many violent attacks. The death of this brilliant and gifted author was very premature. He died in his thirty-third year, yet the period of his life—although very short—was long enough to make his name famous throughout the literary world.



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

## CHAPTER XVI.—Continued.

Laura hastened out to bring back the prisoner.

When the Magister entered, Frau Struvelius looked so imploringly at Ilse, that the latter made up her mind to carry on the negotiation.

"Magister, we have set our hearts upon having this bit of manuscript with which the professors have been so much occupied, and as you know about it, we request your help to obtain it."

A submissive smile played over the lips of Magister Knips.

"We wish to buy it," interposed Frau Struvelius; "and we beg of you to undertake the purchase. You shall have the money necessary for it."

Forgetting their agreement in her intense anxiety, she put her hand into her purse and counted one louis d'or after another on the table, till Laura sprang up, terrified, and tugged at her shawl from behind.

Knips again laid his head on his shoulder, and fixed his eyes upon the small fingers of the Professor's wife, from which fell one gold piece after another.

"This, and still more, shall be yours," cried Frau Struvelius, "if you will procure me the parchment."

The Magister fumbled in his pocket for his handkerchief, and wiped his forehead.

"It must be well known to the ladies," he said, plaintively, "that I have to read many proof-sheets, and to work late into the night before I can earn the tenth portion of what you lay before me. It is a great temptation to me; but I do not believe that I can obtain the strip of parchment; and if I should succeed, I fear it will only be upon the condition that it shall not get into the hands of any of the professors, but be destroyed here in your presence."

"Go out again, Magister Knips," cried Laura, springing up, "and leave your hat here that you may not escape us."

The Magister disappeared for the second time. Again the women put their heads together.

"He has the parchment, and he can produce it; we know that now," exclaimed Laura.

"We cannot agree to his offer," said Ilse. "It is not fitting for us to take possession of the parchment; it must be examined by our husbands, and then returned to the Magister."

"I beg of you to take away all this money," cried Laura, "and permit me now to adopt another tone with him, for my patience is at an end." She opened the door: "Come in, Magister Knips. Listen attentively to me. You have refused, and the money has disappeared, all but two pieces, which may still be yours; but only

on the condition that you procure for us at once what Frau Struvelius has begged of you. For we have clearly seen that you possess the strip, and if you still refuse we shall have cause to suspect that you have acted dishonorably in the matter."

Knips looked terrified, and raised his hands imploringly.

"I shall go directly," continued Laura, "to your mother, and tell her that there is an end to all connection between her and our house; and I shall go over to Herr Hahn, and tell him of your conduct, that he may set your brother at you. Your brother is in business, and knows what is upright; and if he does not see it in that light, Herr Hahn will, and that would not be to the advantage of your brother. Finally, I tell you further, I will at once send over for Fritz Hahn and tell him everything, and then he shall deal with you. Fritz Hahn will get the better of you, you know, and so do I, for he always did when we were children. I know you, Magister. We, in our street, are not the sort of people to allow ourselves to be hoodwinked, and we value good conduct in the neighborhood. Therefore, procure the parchment, or you shall know Laura Hummel."

Thus spoke Laura with flaming eyes, and clenching her little hand at the Magister. Ilse looked with astonishment at her determined friend.

If a discourse is to be judged by its effect, Laura's speech was a pattern, for it worked most disturbingly on the Magister. He had grown up among the people and customs of that little street, and could well appreciate the consequences which Laura's hostility would exercise on the needy circumstances of his private life. He, therefore, struggled for a time for words, and at last began, in a low voice:

"As even Miss Laura suspects me, I am undoubtedly compelled to tell how the affair stands. I know a small traveling peddler who carries about with him various antiquities—wood-cuts, miniatures, and also fragments of old manuscripts, and anything of the kind that comes in his way. I have frequently obtained him customers, and given him information upon the value of rare things. This man, during his stay here, showed me a collection of old parchment leaves, concerning which he was already, he said, in negotiation with a foreigner. Attention being drawn to the double writing on the leaves, the strip appeared noteworthy to him, and to me also. I read some of it, as far as could be made out through the paste that lay upon it; and I begged him at least to lend me the parchment that I might show it to our men of learning. I carried it to Professor Struvelius, and as he judged that it might perhaps be worth the trouble of examining, I went again to the dealer. He told me he would not sell the strip outright, but he should like something to be written concerning



it, as that would increase its value; and he delivered it into my hands till his return. This week he came again to take it away with him. I do not know whether it is still to be had, or whether he will take this money for it. I fear not."

The ladies looked at each other.

"You all hear this statement," began Frau Struvelius. "But why, Magister, did you beg my husband to tell no one that the parchment came from you?"

The Magister turned on his chair and again looked at his knees embarrassed.

"Ah, the lady will not be angry if I speak out. Professor Werner has always been very friendly to me, and I feared that he might take it amiss if I did not first show him such a discovery. But Professor Struvelius has also a claim to my gratitude, for he has graciously intrusted to me the proof-sheets and table of contents of his new great edition. I am, therefore, in fear of offending two valuable patrons."

This was unfortunate, certainly, and not improbable.

"Oh, do contrive that your husband may hear him," exclaimed Frau Struvelius.

"We hope, Magister, that you will repeat your words before others who can understand the import of them better than we do," said Ilse.

The Magister expressed his willingness timidly.

"But you must, nevertheless, procure the parchment," interposed Laura.

Knips shrugged his shoulders. "If it is possible," he said; "but I don't know whether the man will give it up for this sum."

Frau Struvelius was again putting her hand into her pocket; but Ilse held it back, and Laura cried out:

"We will give no more."

"Nevertheless," continued the Magister, impelled by the determination of his judges, "as doubts have been raised of its genuineness, the parchment may have lost some of its value for the dealer. But if I should succeed in being of service to you, I respectfully entreat you not to bear any malice against me for the unfortunate share which, without any fault on my part, I have had in this sad business. It has grieved me much the whole time; and since the criticism of Professor Werner has been printed, I have daily lamented that I ever set eyes on the parchment. I should sink into an abyss of misery if I were to lose my respected patrons."

These words excited the compassion of his judges, and Frau Struvelius said, kindly:

"We believe you, for it is a dreadful feeling to have deceived others, even unintentionally."

But Laura, who had established herself as president of the council, decided shortly:

"I beg that all who have taken part in this will meet here to-morrow at the same hour. I give you to that time, Magister Knips, to procure the parchment. After

the expiration of this respite our house will be closed to you, our washing withdrawn, and notice given to the Hahn family. See, therefore, that we come to an amicable settlement."

The Magister approached the table, with one finger drew the gold pieces into the palm of his hand, which he modestly held under the edge of the table, made three low bows, and took leave of the ladies.

Ilse related the adventure to her husband, and Felix listened with astonishment at the role which the learned factotum had played in the tragedy.

On the following morning the Magister made his appearance before the Professor. Breathless he drew out of his pocket the unfortunate strip of parchment, and carried it with bowed head and outstretched hand, bending lower and lower, humbly and imploringly, from the door to the writing-table of the Professor.

"I venture to bring this to you, rather than encounter the ladies for a second time. Perhaps you will graciously deign to deliver this through your wife into the hands of its new possessor."

When the Professor examined him severely, he began a statement in defense of himself. What he said was not improbable. The name of the doubtful trader was known to the Professor. He was aware that he had been staying in the town during the course of the last few weeks, and from the numerous communications that Knips had had with this man in the interest of his patrons, there was nothing extraordinary in their intimacy. The Professor examined the parchment carefully. If there had been a forgery here, it had been carried out in a masterly way; but Knips produced a microscope from his waistcoat pocket, and pointed out how, by means of the magnifying glass, one could discover that sometimes the shadowy characters of the apparently most ancient handwriting had been introduced *over* the words of the church prayers, and had therefore been painted on at a later period.

"Your strictures in the *Literary Gazette* drew my attention to this, and early this morning, when I obtained the parchment, I carefully examined what had been rendered indistinct by the paste. So far as I may be permitted to have a judgment in such things, I now venture to share your opinion that a forgery has been perpetrated on this strip."

The Professor threw it aside.

"I regret that you have ever had anything to do with it, even though unintentionally; you have done a mischief, the painful effects of which you cannot fail to see. I am sorry for it on your own account. This unfortunate occurrence will throw a shadow over your life; and I would give much to be able to wipe it away. For we have known one another through much mutual work, Magister, and I have always felt a sympathy in your self-sacrificing activity in favor of others. In spite



of your book-chaffering, which I do not approve of, and in spite of your waste of time in labors which might be done by less efficient persons, I have always considered you as a man whose extraordinary knowledge inspires respect."

The humble Magister raised his head, and a smile passed over his face.

"I have always, Professor, considered you as the only one, among my distinguished patrons, who has the right to tell me that I have learnt too little; you are also, Professor, the one to whom I venture to confess that I have secretly never ceased to esteem myself as a man of learning. I hope that you will not deny me the testimony that I have always been a trustworthy and faithful laborer in that cause."

He fell back into his humble attitude, as he continued:

"What has happened will be a lesson for me in future."

"I demand more of you. First, you must take the trouble of ascertaining through your acquaintance the hidden source from which this forgery has emanated, for it can scarcely be the accidental idea of an unscrupulous man; it is rather the work of an ill-directed industry, which in time will produce more evil. Further, it is your duty at once to deliver the parchment to Professor Struvelius, and impart to him your discovery. You yourself will do well to be more cautious in future in the choice of the traders with whom you deal."

In these views Knips fully acquiesced and departed, whilst he imploringly besought the kind consideration of the Professor for the future.

"He has, I am certain, to some extent been concerned in the knavery," exclaimed the Doctor.

"No," rejoined the Professor. "His fault has been, that up to the last moment he cared more for his bargain than for the discovery of the truth."

In the afternoon Frau Struvelius said to Ilse:

"What we have succeeded in obtaining has been very painful for my husband. For it has convinced him that he was deceived, while others discovered the true state of the case. It is a cruel grief to a wife when she is the instrument of bringing about such humiliation to him she loves best. This sorrow I shall long continue to feel. Besides this, our husbands are so estranged from one another, that a long time will elapse before their wounded feelings will admit of a reconciliation, or allow them to cherish for each other the respect which as colleagues they mutually owe. I hope, however, that the relations between you and me should not suffer. I have discovered the worth of your heart, and I beg of you—in spite of my unprepossessing manner, of which I am well aware—to accept the friendship which I feel for you."

As she walked slowly towards the door in her black

dress, Ilse looked after her with a feeling of surprise, that the first impression made upon her by the learned lady should have been so quickly obliterated by other feelings.

In the next number of the *Literary Gazette* there appeared a short explanation by Professor Struvelius, in which he honorably acknowledged that he had been deceived by undoubtedly a very expert deception, and that he must be grateful to the acuteness and friendly activity of his honored colleague who had contributed to the clearing up of the matter.

"This explanation has been written by his wife," said the obdurate Doctor.

"We may hope that the disagreeable affair has come to an end for all concerned in it," concluded the Professor, with a light heart.

But the hopes even of a great scholar are not always fulfilled. This quarrel of the scepter-bearing princes of the University had not only introduced Ilse into a new position, but had brought another into notice.

On the evening of the decisive day which revealed the worthlessness of the parchment, Magister Knips sat shivering upon the floor in the unwarmed room of his poverty-stricken dwelling. Books lay heaped up in disorder, on the shelves by the wall and on the floor, and he sat surrounded by them, like an ant-lion in his den. He removed into a dark corner an old cigar chest of his brother's, which was filled with many small bottles and paint-pots, and laid the old books upon it. Then he placed the lamp on a stool near him, and with secret satisfaction took up one old book after another, examined the binding, read the title and last page, stroked it caressingly with his hand, and then again laid it on the heap. At last he seized an old Italian edition of a Greek author with both hands, moved nearer to the lamp, and examined it leaf by leaf.

His mother called through the door:

"Leave your books and come from that cold room to your supper."

"This book has not been seen by any learned man for two hundred years. They deny, mother, that it is even existing; but I have it in my hands—it belongs to me! This is a treasure, mother."

"What good will your treasure do you, poor youth?"

"I have it, mother," said the Magister, looking up at the hard-featured woman, and his winking eyes glistened brightly. "To-day I have read some proof-sheets, in which a man of note maintains that this volume which I hold here has never existed. He wishes the 'never existed' to be printed in italics, and I have so marked it for the compositor, though I know better."

"Are you coming?" called out the mother, angrily. "Stop your work, your beer is getting flat."

The Magister rose unwillingly, slipped out of the room with his felt shoes, and seating himself at the table



helped himself to the scanty fare before him and without further ado began to eat.

"Mother," he said to the woman, who was watching his rapid meal, "I have some money remaining; if you want anything, buy it; but I will know how you spend it, and will see that my brother does not again borrow the money of you, for it has been earned by hard work."

"Your brother will now pay all back, for Hahn has improved his position, and he has a good income."

"That is not true," replied the Magister, looking sharply at his mother. "He has become too stylish to dwell with us now; but whenever he comes he always wants something of you, and you have always loved him more than me."

"Do not say so, my son," cried Frau Knips. "He is quite different; you are always industrious, quiet, and collected, and even as a small boy you began to save."

"I have obtained for myself what was dear to me," said the Magister, looking toward his room, "and I have found much."

"Ah, what hardships you suffer for it, my poor child!" said the mother coaxingly.

"I take things as they come," answered the Magister, making a cheerful grimace. "I read proof-sheets, and I do much work for these learned men, who drive in carriages like people of distinction, and when I come to them they treat me like a Roman slave. No man knows how often I correct their stupid blunders, and the bad errors in their Latin. But I do not do it for all—only for those who have deserved well of me. I let the mistakes of the others remain, and I shrug my shoulders secretly at their empty heads. All is not gold that glitters," he said, holding his thin beer complacently up to the light, "and I alone know the value of many. I am always correcting their miserable manuscripts, but do not correct their worst errors. I see how they torment themselves, and the little they do know they pilfer from other books. One sees that every day, mother, and one laughs in secret over the course of the world."

And Magister Knips laughed at the world.

(To be continued.)

#### BOOKS RECEIVED.

[THE OPEN COURT acknowledges the receipt of all books, but the editor cannot pledge himself to have all reviewed.]

*Le Monde Comme Volonté Et Comme Représentation.* Par Arthur Schopenhauer. Traduit en Français par A. Bourdau. Paris, 1888: Félix Alcan.

*La Criminologie. Etude sur La Nature du Crime et La Théorie De La Pénalité.* Par R. Garofalo. Paris, 1888: Félix Alcan.

*Grundriss der christlichen Glaubens- und Sittenlehre.* Von Otto Pfeiderer. Berlin, 1888: Georg Reimer.

*Materialien aus dem Katechumenen-Unterricht.* Von Dr. H. Eltester. Berlin, 1888: Georg Reimer.

*De La Classification des Sciences.* Par Adrien Naville. Genève-Bâle, 1888: Maisson A. Lyon.

*New Testament and Rational Theology.* A Sermon by John W. Chadwick. Boston, April, 1887-88: George H. Ellis.

*New Testament and Rational Ethics.* A Sermon by John W. Chadwick. Boston, May, 1887-88: George H. Ellis.

*Dégénérescence et Criminalité. Essai Physiologique.* Par Ch. Féré. Paris, 1888: Félix Alcan.

## The Science of Thought.

Delivered at the Royal Institution, London, during the month of March, 1887.

First published in THE OPEN COURT of June, July, and August, 1887.

BY F. MAX MÜLLER.

Chicago: 1888. THE OPEN COURT PUBLISHING COMPANY.  
Neatly Bound in Cloth. Price, 75 Cts.

## THE OPEN COURT,

PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRESIDENT.

DR. PAUL CARUS, EDITOR.

THE OPEN COURT is devoted to the work of conciliating Religion with Science. The founder and editor have found this conciliation in Monism—to present and defend which is the main object of THE OPEN COURT.

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\$0.50 FOR THREE MONTHS. SINGLE COPIES, 10 CTS.

All communications should be addressed to

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(Nixon Building, 175 La Salle Street.)

P. O. DRAWER F.

CHICAGO, ILL.

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#### THE ETHICAL BASIS OF CHARITY.

W. ALEXANDER JOHNSON.

The Editor of *The Reporter*, an organ of Organized Charity, Chicago, speaks not only from experience but takes the scientific aspect of this most vital problem. The basis of Charity must not be sought for in the sustenance of a pauper class who would not exist but for charity. The basis of Charity must be sought for in ourselves and our ethical nature. To this truth the principles and methods of doing the work of Charity must conform.

#### THE INTERNATIONAL COUNCIL OF WOMEN.

MARGARET D. CONWAY.

A timely word about a remarkable and encouraging progress in the development of human kind.

#### DETERMINISM VERSUS INDETERMINISM.

PROF. GEORG VON GIEVEL. In Nos. 25 and 26.

#### THE EDUCATION OF PARENTS BY THEIR CHILDREN.

#### THE ANIMAL SOUL AND THE HUMAN SOUL.

CARUS STERN. In Nos. 22, 23 and 27.

Essays full of fine thought and psychological depth.

#### THE QUESTION OF IMMORTALITY.

A timely word about a remarkable and encouraging progress in the development of human kind. It is shown that immortality according to the Monistic view is imminent; it is a continuance of ourselves in our children, in our ideas and in the work we have done during life. Rudolf Weyler in his essay "THE PROCESS OF PROGRESS" in No. 24 speaks of death as a mere transition and C. Billups in a letter of No. 25 criticizes the wrong notion of a transcendent immortality as taught by Dualism.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 41. (VOL. II.—15.)

CHICAGO, JUNE 7, 1888.

Two Dollars per Year.  
Single Copies, 10 cts.

## THE ANIMAL SOUL AND THE HUMAN SOUL.

BY CARUS STERNE.

Part II.

*Translated for THE OPEN COURT by vq.*

The intelligence of animals is often undervalued, as it is likewise frequently exaggerated. Hunters, bird-fanciers, and lovers of animals in general, are very apt to believe them possessed of remarkable mental capacity and of the control of important mental operations. They relate wonders of the cleverness of their pets, and often recount things which are utterly impossible to the so-called instinct of the lower animals. It is a very prevalent idea that many animals, especially insects,—as for instance the wood-worm,—will feign death when in danger, because they know that they are then less easily seen, or, that their enemies do not eat dead animals. How absurd it is to presuppose that such a tiny creature possesses the subtle thoughts of a Falstaff, or to imagine, as hunters do, that a partridge or any swamp-bird will pretend to be unable to fly in order to lure the hunter away from its nest. The celebrated physiologist Preyer, of Jena, has shown that this "feigning" is in fact a complete or a partial paralysis, caused by fear, and is really a very passive property, which man possesses in common with most animals. But, because these paralyzes are most useful in saving animals from their enemies, it has been developed in them to such a degree that it appears to us to be deep scheming and at times even the acme of heroism; yet such supposed marks of mental capacity are simply out of the question.

This supposed "death-feint" of animals is a good example of the manner in which we can imagine instinct to originate. In certain species, only such animals as were rendered perfectly motionless by fear, had any chance of surviving the others, and so this quality was strengthened by heredity; and similarly actions which insured the perpetuity of the species, became habitual to all animals. Instinctive actions, then, are those which are not the result of reflexion,—as a man in falling does not study about extending his arms;—they are impulses innate, not only in the individual, but in the species, and they are exercised without requiring any knowledge of their consequences on the part of the animal. Thus we often meet with the oddest acquirements in the form of instincts.

The ancient classical authors, and especially those who have told us many anecdotes of animals, like Ælianus, Pliny, and others, contain innumerable stories which tell us that sick animals know very well how to find suitable remedies in the animal or vegetable kingdom, and that in this respect, as in many others, they have been the teachers of man. Instead of repeating all the numerous examples to be found in the above-mentioned authors and which, strange to say, are usually accredited to Aristotle, we will here cite the comprehensive description which Plutarch has given of the animal sanative instincts in his excellent dissertation: "Are land or water-animals the wisest?"

"Democritus," he says, "teaches us that even in the most important subjects we have been the pupils of animals; for instance, in spinning and sewing we have learned from the spider, in building, from the swallow, and in singing, from the singing-birds. We even find among them distinct traces of the three different branches of the art of healing (medicine, dietetics, and surgery). In the first place they know how to heal internal diseases by means of herbs, etc. The turtle will immediately resort to the use of hemp-agrimony and the weasel to Syrian rue if they chance to have eaten part of a snake. Dogs cure themselves of the jaundice with a certain purging herb. The snake rubs its bedimmed eyes against the fennel-plant, and thus partly restores them. The bear, upon leaving his den, eats first of all of the wild arum, which clears the shrunken viscera. If he feels unwell, he will go to an ant-hill, stir it up, and, seating himself beside it, will extend his tongue, which is coated with a sweet, sticky juice, until it becomes covered with ants, these he swallows, and the effect is very healing to him. The Egyptians are said to have learned the use of the clyster from the Ibis, which purges itself by the injection of sea-water; and their priests use as holy water only that from which an Ibis has drunk, because this bird will not use impure or unwholesome water. Some animals cure themselves by abstaining from food altogether, as wolves and lions for instance, who, when they are tired of meat or oversatiated, lie still and try only to keep warm."

In these tales truth and fiction evidently mingle. Still some statements, such as the account of the strict diet which sick animals impose upon themselves, will



be confirmed by every observer of animal habits. But most people will consider the accounts of the knowledge and the use of medicinal plants among animals, in the light of fables, and the author himself was formerly of this way of thinking. It is certainly remarkable that Aristotle, who is known to have been such a close observer of animal life, emphatically repeats similar tales. Now it happens that some time ago I noticed a case which appeared to me to be a proof of such a wonderful sanative instinct that I will cite it here.

In my household a number of the blossom-laden branches of the wormwood had been plucked to dry for kitchen use. A number of little twigs and blossoms had fallen to the floor, and I noticed to my surprise that my little dog eagerly sought and ate them. Soon after he seemed to feel uncomfortable and discharged an excretion of an extremely bad odor, containing many parts of a tape-worm. I knew that this dog, like most dogs, suffered from a tape-worm (*Taenia serrata*) but I did not know that wormwood was a remedy for it, and moreover one of which the dog appeared to know. The next day, I mixed a quantity of the blossoms with his food and, despite the strong odor, he ate them eagerly, and again excreted portions of the tape-worm. Consequently, I do not doubt but that this or other species of worm-wood, is the plant mentioned by Aristotle, Elianus, and Plutarch, as the one with which dogs purge themselves; and as most of the *genus artemisia* are worm-expelling, it is probable that these animals relieve their habitual suffering by eating of this plant which grows by the road-sides and near manure and rubbish heaps.

"What is the reason that animals afflicted by disease eagerly seek means of relief and by their use are oftentimes cured?" Thus this same Plutarch has headed a chapter in his "Questions on Subjects of Natural Science," and he answers it as follows:

"...All these remedies became known to animals neither by experience nor by accident. Are we to believe that as the bee is attracted to honey and the vulture to carrion by the odor, so hemp-agrimony attracts the turtle, and the ant-hills attract the bear by emitting odors and exhalations suitable to their condition, without an anticipation on the part of the animal of the benefit to be derived therefrom? Or is the appetite of animals influenced in every instance by the existing combination of the moistures of the body, the union of which creates the various sweet and acid juices as well as other strange and harmful elements, thus provoking sickness? We see this in women who in certain conditions have a craving for earth and stones and eat them."

Plutarch decides in favor of the latter assumption and I have not heard any better explanation offered by more modern authors. What G. Jaeger has said more recently about the instincts of food, lust, and nausea,

in my opinion, amounts to the same thing. Any one who has ever witnessed the impetuous haste with which the Alpine herds press forward to be "salted," and who remembers how little he himself likes unsalted food, will understand this and similar explanations of the necessities of food. And why, besides ordinary hunger and thirst, may there not also be physiological shades of appetite for alkaloids, acids, spices, narcotics, salt, etc.? Still, it is more difficult to believe that a certain disease, as the tape-worm in our example, provokes a peculiar appetite, which suggests the search for healing remedies. It appears to me that another, viz., the Darwinian, explanation of instinct is preferable. We must assume that beasts of prey, who live almost exclusively on raw meat, possess some habit which enables them to make the parasites often contained in the meat harmless, or, at least, to keep them in check. We might therefore believe that those species which had contracted the habit of occasionally purging themselves by means of certain herbs, had become stronger and more capable of resistance than others, and had survived these, and that the predilection for wormwood exhibited by my dog, is an hereditary habit peculiar to the race. Regarded from this stand-point the question seems to be very plausible, and in this connection it would be very interesting to learn whether the beasts of prey in Zoological Gardens, not being free to choose their food, are greater victims to the worm-pest than dogs, and in the latter case, whether chained dogs are more troubled than those at liberty?

Among the higher animals, all such instincts may be consciously exercised, that is to say, the animals may know what they are doing, but not, why they do it. We must remember that in man also, there are similar coercing impulses still extant, the object of which we know, but which we would obey just the same if we did not know their purpose; for instance, to mention the two earliest and strongest: the instincts of love and hunger. It is said that we eat to become satiated, but satiety is far from being an agreeable feeling; the fact is, we eat because our nature impels us to do so, and the satisfaction of this impulse produces pleasant sensations. We need not expatiate upon the other of the fundamental impulses,—everyone knows it from personal experience. Instinct in man embraces whatsoever concerns the fundamental conditions of the preservation of life. And does this not also apply to the social instinct and the consequent social virtues? Does not man possess them in common with animals although naturally in a more advanced state of development? Animals, too, vary greatly in point of mental endowments; those that live socially, like the ants, were able to raise themselves far above their level, while the beasts of prey, by their superior cunning, could outwit their herbivorous relations. We may as-



sume with much certainty, that the lowest classes of animals, just like the plants which twist and turn to the sun and are able to find their nourishment in the ground, are utterly devoid of consciousness. Of their senses there has perhaps been only a general sense developed, which enables them to distinguish the nutritive ingredients in surrounding objects. Even among some of the higher animals these two chemical senses of taste and smell are the factors of existence; eyes and ears appear to be altogether superfluous to the lowest animals; their existence seems to depend entirely upon hereditary instinct.

Beside these hereditary habits which require no manifestation of consciousness and of which the single actions, like reflex motions, are determined by external influences, there arises in time a consciousness which enables animals to ignore the set ways of their ancestors and, considering each special case, to suit their actions to existing circumstances. Recollection and personal experience are gradually added, loosening the bonds which had heretofore bound their movements and encroaching more and more upon the dominion of instinct. The higher animals receive a sort of juvenile education from their parents, and from the manner in which they are fed and nursed, they develop unmistakable signs of intelligence. They acquire the capacity to imitate, to learn and to reflect. The freedom of the will which appears to me to be a privilege especially accorded to human beings, has in animals, though still greatly suppressed by imperative instincts and impulses, nevertheless already freed itself in great measure from the shackles of absolute and arbitrary instinct, and we know that in certain cases we can train animals to resist even the strongest impulses. A new coercive force has simply taken the place of the dominant natural instinct,—such a force as the fear or love of man,—yet the old bond is broken.

What specific distinction may remain, then, between the intelligence of higher animals and that of man, is as difficult to determine with certainty as it is to clearly define it. Probably the eminent Italian psychologist, Tito Vignoli, in his work on the "Fundamental Law of Intelligence in the Animal-Kingdom," was correct in assuming that the mental process is essentially the same in the higher animals as it is in man, only that the former lack the power of inner reflection about their reflections, or that quality which we usually distinguish from consciousness by the term self-consciousness. Animals make observations with the senses sometimes far more acute than ours; they arrive at conclusions; they recollect things that are past, but all these acts are induced by internal and external processes which are not under the influence of the will; they cannot guide their processes; they

cannot analyze them, or voluntarily evoke them, or compare them with each other; all this would presuppose a mental self-observation, a double intellect, as already designated by the ancient phrase *homo duplex*. For instance, a dog dreams just as a man does; yes, by the continued use of absinthe he can be brought into a condition analogous to that of delirium tremens, in which he madly barks and snaps at the phantoms of his diseased brain, but he will never learn to distinguish the dream from the reality and recognize that they are but fever phantoms; which man, to a certain extent, is capable of doing. If we have arrived at this point, we can imagine the human mind to have grown out of that of the animal, and to the philologist the vehicle of this evolution has long been an open secret; intelligence has grown with the development of language, which has made it possible for man to formulate abstract ideas and thus to acquire self-consciousness; even at the present day there are peoples whose language and intelligence remain alike poor in abstract ideas.

#### RUSSIA AND THE EVANGELIC ALLIANCE.

BY THEODORE STANTON.

The Evangelic Alliance, says the *Journal de Genève*, has always considered that one of its first duties was to defend liberty of conscience and worship wherever threatened. Consequently, at the meeting of the delegates of the Alliance held at Geneva in August, 1886, for the purpose of constituting an International Committee, it was decided to send an Address to the Emperor of Russia, calling his attention to the violation of the principles of religious liberty in the Baltic Provinces.

This Address was drawn up by the Geneva Committee and signed by the principal members of the Alliance in Europe and America. In the United States it was signed by William E. Dodge, President of the American branch; Dr. Philip Schoff, Hon. Secretary; and Josiah Strong, General Secretary. Among other well-known names affixed to the document were Count von Bernstorff, of Germany; Lieut. Gen. Field, C. B., of England; Baron van Wassenar van Catwijck and Count van Bylandt, both of Holland.

During the visit of the Czar to Copenhagen last August a deputation of the Alliance composed of Count de St. George, member of the Geneva Committee, and Colonel Nepveu, delegate of the Dutch branch, presented this Address. Thereupon the President of the Holy Synod, M. Pobedonoszew, was charged by the Emperor to reply to the communication of the Alliance. This reply has now been made public, and I give below the principal passages of this long and important document.

"Nowhere else in Europe," writes M. Pobedon-



oszew, who may be called the Minister of Public Worship, "do heterodox confessions, and even those that are not Christian, enjoy such perfect liberty as in Russia, whose people, by their very nature, entertain the highest respect for every religious faith. But unfortunately Europe will not believe the truth of what I state. Why? Simply because outside of Russia religious liberty means the right of unlimited propagandism, whilst in Russia there are laws which punish those who leave our faith or who strive to make conversions to the detriment of orthodoxy. Europe pretends to see in these laws for the protection of the dominant church against the attacks of its enemies, religious persecution. But nothing of the kind exists.

"What saved Russia in the midst of the political and religious conflicts that have deluged Europe was the complete independence of its primordial forces, the immutability and energy of its national spirit, nourished in the faith of the Orthodox Church. I repeat that the vital principle to which Russia owes her salvation was found in orthodoxy. With this faith the nation has developed. This it is that has rendered Russia strong enough to accomplish her grand mission for the good of humanity. To protect the orthodox church against everything that threatens its security, is the sacred duty taught by our history, and on which depends its very existence.

"At the earliest stage of this religious and national development, Russia was brought into contact with the religions of the West. The Crusades, the conquest of Byzantium and the debasement of the Eastern church showed us that the religious aspirations of Western Europe were deeply penetrated by political passions and that the spirit of tolerance was foreign to them.

"Then came the Wars of Religion, with their passions and hatreds. States fell and rose. New confederations were formed, new nationalities appeared on the scene. Political ambition was rife. At this moment, when politics and religion were inextricably mingled, the two grand confessions of the West appeared simultaneously in Russia.

"Catholicism chose for its field of operations the Provinces of the West. Unfortunately it appeared among us identified with the Polish conflict. It began an implacable war on our orthodox church and strove to exterminate everything Russian and to transplant it by what was Polish. Under the banner of Catholicism, the armies of Poland penetrated more than once to the very heart of Russia. At the present day even, it is impossible to point to a single spot in Russia where Catholicism acts in a neutral spirit, where it is tolerant and not animated by a sentiment of animosity for the orthodox element, and filled with a desire to detach from Russia the thoroughly Russian Provinces on the western frontier.

"Unfortunately it was under almost similar conditions that Russia was brought face to face with Lutheranism in the person of the ancient Knights of the Teutonic Order, who barred her way to the Baltic sea. Destroying everything that could recall Catholicism, these new converts to Lutheranism, barons and clergymen, clung to all the temporal advantages that came to them from the old church. With all the energy of their race, they followed in the footsteps of their predecessors, exercising an arbitrary authority in the country, exciting the Letish and Finnish population against Russia, and condemning orthodoxy as the symbol of unity with Russia. And this old struggle is still going on, a struggle for the complete control of the country, led by the descendants of those ancient knights.

"Lutheranism, like Catholicism which it supplanted in those Provinces, uses religion as a mask with which to conceal its political aims. It does all in its power to put obstacles in the way of a closer union of the natives with the mother country, violating liberty of conscience, and at the same time complaining because it is not allowed to carry its spirit of propagandism beyond legal limits. It fills Europe with its complaints, while engaged in disturbing the most peaceful Lutheran Communities of the other parts of the Empire. If Protestant Europe would refuse to be influenced by the complaints and exaggerations of these intriguers, if it would look at the situation which really exists, it would see the formidable difficulties that lie in the way of him who would pass freely from the Lutheran to our Orthodox Church, and would perceive that in this hard struggle our efforts are not directed against Lutheranism but, quite the contrary, are concentrated in the defense of our church against the attacks of Lutheranism.

"The hour has not yet come, however much the true Christian may regret the fact, for the pacific fusion of the Western and Eastern churches. Here in Russia the confessions of the West are far from having abandoned their dominating pretensions and are ever ready not only to weaken the influence but to attack the very unity of our country. Russia cannot permit this kind of liberty. She will never suffer her children to be drawn away from the orthodox church and enrolled in a foreign sect, still in arms against the Russian nation. This is declared openly in her laws, and for our justification in this course we call upon Him who rules the destinies of Empires.

"Occidental Europe proclaims liberty of propaganda for all sects, but does not protect the dominant religion, the State church. Here in Russia we have followed the contrary course. But you who find fault with us, have you succeeded in guaranteeing liberty of conscience to all sects, in causing them to live side



by side in peace, and in banishing from their minds all desire of domination? Alas, no. This perfect liberty is enjoyed only by those who have passed from faith to incredulity."

The *Journal de Genève*, the leading daily of Switzerland, in commenting on the foregoing document, says:

"It should be borne in mind that this Response has almost as much weight with the orthodox church of Russia as the decision of a Council or the Pope speaking *ex cathedra* has with the Catholic Church. It amounts, therefore, to an official and solemn *non possumus*."

"On the left bank of the Vistula, therefore, liberty of conscience consists not only in the free exercise by every one of the religion in which he is born, but in the right of changing it for another when he has ceased to believe in it; and furthermore, in permitting a man to propagate his favorite belief with pen and word of mouth. On the right bank, however, freedom of worship is limited to defending against every intellectual and moral danger, the dominant religion, which being the only true one alone has the right to exist, the others being tolerated as sin is tolerated, because it cannot be eradicated. And this defense of the State church is not limited to a prohibition of every propagandist movement. It declares that an orthodox may not change his religion, even if he has ceased to believe; it even goes further and threatens the backslider with severe punishment if he attempts to return to the faith of his Protestant or Catholic ancestors, from whom he may have been separated against his will."

"Such is the appalling doctrine propounded by M. Pobedonoszew with a *naïveté*, an authority, and an unction in which irony is mingled. It reads like an expression of contempt for all our Western ideas. In a word, it is religious absolutism in all its rigor that characterizes this strange document. God save Europe from ever comprehending liberty of conscience after the manner of M. Pobedonoszew."

The St. Petersburg correspondant of the *Paris Temps* refers as follows, in his last letter, to this same extraordinary document:

"This *exposé* of views is particularly interesting at this moment when Russia and the Vatican are in the midst of negotiations. It is evident from this document that the Russian Government, in exchange for certain concessions concerning the autonomy of Catholic worship, will expect the Pope to exercise a strong influence on the Catholic clergy in the Western Provinces of Russia, so that they will separate their spiritual interest from those of a political nature, fostered by the ardent advocates of Polish nationality."

PARIS, April, 1888.

## THE INDIVIDUALITY\* OF ATOMS AND MOLECULES.

BY REV. H. H. HIGGINS, M.A.

### ATOMS.

The tendency of chemical research since the commencement of the present century has been to confirm the objective reality of these minute hypothetical forms. Atoms are not now regarded as indefinitely small; their diameters have been estimated and the number of atoms which would fill a box of measurable size has been computed. All atoms *may* be reducible to some ultimate principle; but atoms have never been divided, and the atom of a chemical formula is a distinct individual, which, as such, differs from an atom of a like kind; whilst it also differs, after another fashion—*i. e.*, in its idiosyncrasy—from the atom of a distinct elementary substance.

What constitutes the idiosyncrasy of an atom?

Let us begin with the best established of its qualities—weight. Why should an atom of oxygen be about sixteen times heavier than an atom of hydrogen, the size, or volume, being much the same? Gravitation is a mystery which is not solved when for attraction, which is declared to be inconceivable between bodies unconnected by any medium, is substituted the *vis a tergo* influence, which some regard as possible through the agency of the ether. Perhaps so, but what does either attraction or the ether find whereon to lay a strong hand on one atom, but a light hand only on an atom of a different kind? This question has not been answered; no one has ever seen or handled an atom, much less investigated its contents. The hypothetical nature of the atom has hitherto discouraged enquiry, but a higher confidence in its objective reality has now removed the atom from the sphere of ideality to that of the physical cosmos.

That it is too small to be recognized by our organs of sight does not render it infra-natural. We are satisfied that an atom occupies space to the exclusion of all other ponderable matter; that an atom in motion will continue to move with uniform velocity and direction till acted upon from without; in short, that an atom is a body, and is subject to the natural laws which govern other ponderable bodies. But an atom is more than a body. It is not merely a very small bit, or a least possible corner. It has singleness and completeness. It is an individual that cannot be added to, or diminished, or changed in shape or volume in any way, without affecting its identity.

To speak of an atom as if it were a glass ball, we might say that it cannot be broken or chipped, compressed or scratched; that no dust can settle on it, for the particles of dust are small masses consisting of

\* No exhaustive definition of "Individuality" has hitherto been found: but, at all events, it implies a certain amount of singleness and completeness in the object of which it is a character.



myriads of atoms. An atom is, in fact, the most perfect, perhaps the only quite perfect, individual. Whatever it has is its own with an entirety which can in no other case be predicated, and its idiosyncrasy, which is the sum of its properties as an individual, must include something that is *sui generis*.

There are supposed to be about seventy elementary substances, and, if so, there cannot be a less number of distinct simple atoms.

Upon the properties, combinations, affinities, and motions of these bodies, men, distinguished by their penetrating intellects, have been engaged in all quarters of the world for the last half century.

The result has been a course of observation and discovery, which has achieved the almost incredible feat of securing for the science of matter a progress *pari passu* with that of the science of biology, reconstructed and invigorated by the genius of Darwin.

It must be admitted that chemistry, as represented by its libraries of scientific treatises, its renovated nomenclature, its astonishing system of symbols and its vast industrial products, exhibits a triumph of that kind of knowledge which is verifiable by experiment, a knowledge to which some would restrict the name of science.

Hence, the general elimination, from chemical works, of philosophical enquiries and considerations not obviously tending to increase the number of ascertained verifiable facts pertaining to chemical science.

For example, the enquiry, if an atom be an individual and possess a true idiosyncrasy—in what relation does it stand, as an individual, to another individual—*e. g.*, an atom, or an animalcule, or a whale?

It has been already suggested that the relation between individuals rests upon each having a completeness of its own. A mere bit of matter, as a lump of sugar, can have no such relation with another bit.

Now, therefore, we have entered upon a category of enquiries differing from ordinary chemical investigations in not anticipating solution or verification by experiment.

What, we may ask, is the atom's place in Nature? It is hard to conceive anything like an atom within the realm of psychology, or in electricity, or in light, or in any of its correlatives, or in the ether. The rest of Nature, however, seems to be made up of atoms. Not indeed of simple atoms, but of these, and of atoms in combination, forming molecules, which also have individuality and idiosyncrasy pertaining to them as to the atoms. So long as the term atom was a mere hypothetical convenience, it was unprofitable to enquire for any significance in the atomic constitution of the matter of the universe.

It need not be so now; for the atom is to us the ultimate form of matter, and it is understood that neither the electric spark, nor a heat immensely greater than that of the sun has been known to disintegrate an atom. It is probable then that the atoms have always obeyed the laws of matter and of motion, so that if we look back to a period ever so remote, our retrospect does not lead to a condition of chaos or to the fortuitous wanderings of atoms, but rather to a condition of order and obedience to law.

Moreover, whilst the course of ages has witnessed higher and yet higher forms of differentiation, our earliest horizon can show nothing of homogeneity, or of any approach to it, but, on the contrary, from the very outset it shows an innumerable multiplicity of individuals of a few kinds, endued with properties, qualities, and capacities which they possess still. As the term "homogeneous" has, on high authority, been applied to the primal condition of matter, it may be well to point out that, if atoms have the individuality indicated by the discoveries of Mendelejeff and other chemists, the nearest approach of matter to homogeneity, has been no closer than may be illustrated by the contents of a bag of shot, or of a vessel of water, which is, in fact, no approach at all.

Something of this kind of answer seems to be suggested by the present state of knowledge in reply to the enquiry—What is the atom's place in Nature?

We may now pass on to another part of the same question—How does one atom differ from another?

Sir Henry Roscoe, in his Manchester address to the British Association, states that the weights of the atoms of the elements approximate so closely to multiples of the weight of the hydrogen atom that some reason must exist for the coincidence, which is only short of absolute accuracy.

To myself, that for more than thirty years have noticed and contemplated similar infinitesimal discrepancies, this is extremely interesting, because it illustrates a frequent tendency in natural laws and relations, when under exhaustive examination, to disclose residuary unconformable phenomena.

The President of the British Association regards the hydrogen discrepancy as an occult but fundamental question of atomic philosophy, at present behind the veil, but, he doubts not, at no distant period to be brought into the clear light of day.

The President's confidence might be shared more readily if his difficulty stood alone. It is, however, I think, not too much to say that the approximate character of many natural laws, discovered only through matured knowledge, cannot be a matter of chance, but that some reason must exist for it, which reason may continue to operate in future, not to shake our confidence in the reality and stability of natural laws, but



to prevent our knowledge of them, *at any given age*, assuming a dogmatic form.

The introduction of a new element, Helium =  $\frac{u}{2}$ , would perhaps serve a purpose in certain instances, but might probably render a number of other adjustments necessary. Sir H. Roscoe regards the incommensurability as so minute as to be only short of absolute accuracy. Now  $\frac{u}{2}$  would only exactly serve to fit a discrepancy where the difference was not less than  $\frac{0}{32}$ , which cannot be regarded as pertaining to a high degree of approximation.

#### MOLECULES.

In passing from the atom's place in Nature to consider the relations subsisting between one atom and another, or several others, within the sphere of mutual and reciprocal action, our thoughts must still be directed in pursuit, not of phenomena, but of reasonable and philosophical inferences, based on verifiable facts.

The present subject is, however, vastly more comprehensive than the former. The kinds of atoms may constitute a series of about seventy terms; but the combinations of atoms in forming molecules are almost innumerable.

A molecule is defined to be the smallest particle of any substance capable of existing in a free state. It is evident, therefore, that in an elementary substance the molecule may be represented by the atom. But the molecule implies combination and liability to decomposition, and in these respects it differs from an atom.

What, then, happens when atoms combine to form a molecule; *e.g.*, when two atoms of H unite with one atom of O, to form a molecule of water,  $H_2O$ ?

The atom of O possesses its idiosyncrasy under a new phase. It is no longer a disengaged O atom. Part of its capacity is satiated by union with the H double atom. It has, however, not altogether lost its properties, for it retains a strong affinity for the other elements, *e.g.*, the metal potassium, for the sake of which the O in the molecule of water will forsake the H, decomposing the water.

The atoms of O and of H can, moreover, be recovered from water by electrolysis.

In the synthesis of water, therefore, atomic individuals of two kinds have partially lost their characters, and a molecule has arisen possessing a true idiosyncrasy, derived in some occult manner from the properties of the constituent atoms, which, however, are not entirely used up in forming the  $H_2O$  molecule.

The properties of water must be regarded as altogether depending upon the idiosyncrasy of its molecule. But the properties of the molecule are not primordial, as in the atom—they are derived. When, therefore, we regard the crystalline forms assumed by water, its freezing and boiling points, its weight, its

remarkable specific heat, its curious property of suddenly expanding before reaching the freezing temperature—a peculiarity without which the world would soon be as lifeless as the moon—our sense of causality requires that we should seek their antecedents somewhere far back in the O and H atoms.\*

An ordinary investigation into the idiosyncrasy of the O atom will convince us that its capacity for combination with other atoms is very great; there are few kinds of atoms, I believe only one, *viz.*, fluorine, with which it is not ready to unite in various proportions. Such combinations are said to be the result of *chemism*, or chemical affinity, a force which is declared to be of the same nature with mechanical force. To speak more accurately, some who admit chemical affinity to be still obscure, assert that the tendency of modern discoveries is to indicate that chemical affinity is mechanical in its character.

I shall endeavor to show that this is true only in the same sense with the assertion that modern discoveries point to the primal condition of the universe as being homogeneous, a misconception with which we have already dealt.

To begin, then, with examining the results of chemical affinity. The process of chemical combination takes place under our own observation. We can construct  $H_2O$ , the molecule of water, and have something to say on the operation. After combination, the oxygen is still there in some sense, and the hydrogen is still there in some sense, but from their union has sprung a foreign individual,  $H_2O$ , marvelously distinct from either. It has certain of the qualities of its antecedents, such as weight and extent, but therewith a set of entirely new properties, together constituting the idiosyncrasy of a distinct individual,  $H_2O$ .

Now to affirm that the process by which this is effected is mechanical is, I think, to misrepresent the limits of mechanical efficiency. It is unworthy of serious enquiry to say—Why, what else can it be? Mechanics is the science of motion, and is not chemical combination a case of motion?

We are now at the very nucleus of our question, and desire to be specially on our guard against, and to keep others from, playing fast and loose with the meanings of terms.

The laws of motion and of mechanics are uniform and simple.

It may be said that "*molecular mechanics*" are intended—something quite distinct from the ordinary mechanics of masses.

Such a statement may be responsible for any amount of error, for, so, molecular mechanics would be the science of an unknown agency called into existence for the purpose tiding over a difficulty.

\* *Nihil in moleculis quod non prius erat in atomis.*



Now, in the dynamics of gaseous particles, the principles of mechanics are gloriously applied to solve wondrous problems, but the beauty of the solution lies in its being obtained by the recognized laws, and not by a new science such as that of molecular mechanics, created *pro re nata*. To be able to account for the pressure on the side of a vessel, due to the motions of gaseous particles, is legitimate mechanics, but the problem is something very different from that we have had to deal with in the process of the nascent individual, when  $H_2$  combines with O to form a molecule of water.

No parallel to this, in law or sequence, can be found anywhere in Nature, except on the same lines, namely, of atoms combining to form molecules. But, I think, it is impossible not to be reminded of operations which everywhere, and at all times, prevail in the presence of organic life.

For example, the fertilization of an ovum, wherein two elements combine, each of which is a distinct individual, having an idiosyncrasy of its own, the result being amazingly different from either. Thus it is with the incipient molecule. No one questions that the phenomena of fertilization are dependent upon the presence of life; it may, at least, be possible that the generation of a molecule from two or more atoms may equally be dependent on some form of life, or its equivalent.

In this way we are led to the hypothesis of the existence in the atom of a property resembling life, whatever life may be. I do not pretend to be able to explain life; but I believe it to be grossly unscientific to define life as if, exhaustively, it were the product of *known* laws regulating matter in motion. I do not look upon life as miraculous, but as involving laws other than we know at present.

I am well aware that this is no new position. James Hinton, one of the most profoundly thoughtful men that Liverpool has numbered amongst her citizens, takes up inorganic life strongly in his work entitled *Life in Nature*; but the individuality of atoms was unknown to him.

As a philosophical deduction, the universality of life has been held from ancient times, but it has never advanced beyond a limited acceptance as a speculative conception.

If it now occupy a vantage ground, it is, I believe, almost entirely through the prominence given to the individuality of the atom.

I trust I may be pardoned the introduction of a brief episode relating to my own progress in accepting the proposition I am bringing before you in this paper.

Having been for many years a student of James ton's works, nothing held by him was indifferent

to me. I wished, if possible, to agree with him in beholding life everywhere, and to some extent I did so; but notwithstanding the beauty of the atomic theory, the atoms were a difficulty to me. As representing the elementary condition of matter, the atoms seemed to be deficient in order.

Homogeneousness has always been most repulsive to me, as being a cloud out of which nothing could escape or be developed. But why need I dwell on the deficiencies of atoms? All that seemed to be required of order and individuality has been shown to belong to them by that inexpressibly astonishing law of their periodicity, discovered by Newlands, and prosecuted by Mendeleeff.

The seventy atoms classified on a natural system, founded on all the observable properties of each atom, are understood to form an ascending series like the rungs of a ladder; he grades in which are so uniform that gaps in the series were detected, and led to the prediction and ultimate discovery of the new elements, Gallium, Scandium, and Germanium.

I have regarded this as the greatest of all discoveries for the following reason. Other laws illustrate order where order was previously presumed to exist; but this brings order down to the ultimate condition of matter, where, at all events, the presumption of order was not strong enough to resist the barbarous invasion of the doctrine of homogeneity.

After the establishment of Mendeleeff's law, the recognition of some equivalent to life in the atom became inevitable, and its acceptance is, I think, only a matter of time.

If thus much be admitted, the existence of a common base of all the atoms becomes more probable; but it has not yet been shown.

By what name shall we designate this supposed life without protoplasm—this vital principle of an atom?

In the case of a microscopic organism, known as a Radiolarian, Haeckel proposes the term *Zell-seele*, or cell-soul, for the vital principle of his unicellular animalcule, or protozoon, and regards the cell-soul as the "unit regulating the animal and vegetal functions of the organism, and the special organ of reproduction and inheritance." Not a little astonishing, certainly, considering his former impetuous protests against vitality; but we may gladly let by-gones be by-gones.

I should prefer the term life-unit, but it is cumbersome, and I propose to use the term *bios*; premising that in an atom the *bios* is intended to denote that primordial potency by virtue of which the atom possesses and exercises elective affinity, and whatever else may unite to make up its idiosyncrasy as an individual.

(To be continued.)



## SONNET.

LOUIS BELROSE, JR.

The sweetest visions haunt me ever,  
 When no word's nigh;  
 The fairest thought escapes endeavor,  
 Born but to die.

Like hearts the weary wide waves sever,  
 That ache and sigh,  
 So year my thought and word, but never  
 Find wings to fly.

Yon birds that keep the wild wood ringing  
 All day long,  
 Are joyous, each emotion bringing  
 Notes as strong.

Ah, would that I had voice for singing  
 My whole soul's song.

## BOOK REVIEWS.

A STUDY OF RELIGION, ITS SOURCES AND CONTENTS. By *Frédéric Martineau*, D. D., LL. D. Oxford: 1888. At the Clarendon Press. New York: 1888. MacMillan & Co.

The author of this work need not be praised, for he is sufficiently known as a scholar and a thinker. Martineau's "Study of Religion" may be considered as the ablest and most comprehensive exposition of Unitarian Christianity. It is the fruit of the author's maturer years and contains the main results of the inquiries and thoughts of a long and rich life.

If we disagree with the author—and we do disagree with him in most essential topics—it is with due regard for the man. A complete statement of our disagreements cannot be laid down in the narrow limits of a review and we must therefore at present confine ourselves to a few points.

We disagree from the beginning with the author when he understands by Religion "belief in an Ever-living God, that is, of a Divine Mind and Will ruling the Universe and holding Moral relations with mankind."

This means more popularly expressed: Religion is the belief in a personal God. Any religion that depends upon belief is dogmatic. And if religion cannot be built upon facts which can be proven by science, its whole system rests on sand. Religion, as we take it, is a fact of human nature; it is based upon the necessity of the individual to hold moral relations with the rest of the world especially with mankind. The irreligious person is he who has cut himself loose from the responsibility implied by such relations, but not he who rejects a belief, be it in a personal Deity or be it a belief of any other kind.

Professor Martineau, it must be confessed, is very liberal as a theologian, but he has not yet freed himself from the prejudices of supernaturalism. He does not yet see that for a consistent scientific reasoning he must drop his dualistic views of a transcendental mind and of absolute and eternal consciousness. Both ideas are intimately interwoven with his conceptions of God and immortality.

Mr. Spencer's view of the Unknowable is well objected to on pp. 131 and 132: "Wherever I can distinguish, there I know; and do I not distinguish this 'absolute' from all that is related to it, and thus get it, as counter term, into relative apprehension? Is it not, among noumena, different from Space, from Time, from Substance? If I can say all these things about it, it is no longer competent to me to designate it as the absolutely Unknowable. To know that an object *is*, yet know nothing that it *has*, is impossible,

because contradictory. This negative Ontology therefore, which identifies 'the supreme reality' with total vacuity, and makes the infinite in Being the zero in thought, cannot permanently poise itself in its precarious position: it must either repent of its concessions to realism (which it is too philosophical to do), and lapse into the Scientific commonplace 'all we know is phenomena'; or else advance, with what caution and reserve it pleases, into ulterior conceptions of the invisible cause, sufficient to soften the total eclipse into the penumbra of a sacred mystery."

The 'commonplace' of Science is certainly a firmer ground for religion to build upon, than 'the penumbra' of mysticism. In our opinion the light of science, not its 'penumbra,' is 'sacred,' and invisible causes are 'commonplace' topics of an antiquated philosophy. We do not believe that natural phenomena are the visible effects of 'invisible causes' behind nature.

THE RELIGIOUS SENTIMENTS OF THE HUMAN MIND. By *Daniel Greenleaf Thompson*. London: 1888. Longmans, Green & Co.

It is after all not so very difficult to be just towards an author who is a pronounced adversary of ours. But it is a hard task for a reviewer if he make earnest efforts to treat an author with justice, to find that the latter's reasoning is as different from his own as if he had adhered to another system of logic; Mr. Thompson defines Religion as "the aggregate of those sentiments in the human mind arising in connection with the relations assumed to subsist between the order of nature (inclusive of the observer) and a postulated supernatural. The supernatural of Mr. Thompson is very different from the theological conception of the supernatural. It is more like the unknowable of agnosticism. He says: "Given a self-distinguishing and self-active consciousness which in the process of its self-distinguishing and in the exercise of its self-activity finds a limitation of its knowledge and power; which by virtue of that limitation is compelled to posit a something beyond the limit; and which has in constant employment a constructive faculty enabling it to develop fancies, imaginations, ideals, and hypotheses—given thus much, and the idea of a supernatural or an extra-natural with some notions about the same must inevitably arise. Hence the genesis of religious sentiments." But how can there be anything outside of nature? Our ideals have value only in so far as they may adorn and beautify nature or as they are realizable in life. Ideals which are not practicable are dreams, and a religion based on fancies is a superstition. Mr. Thompson, however, considers his supernatural as a concrete and positive something. He starts from the limitation of our cognition and indicates that there is in this 'negative' something positive unknown. "In all cognition whatever there is, as a part of the cognition, a cognition of a negative existence with a positive; and that the one is just as real objectively as is the other, is just as primary and as necessary." The existence of this extra-natural is proved in the following way: "After we have included in a synthesis all things, making a whole of nature, there is still something not included. An absolutely universal concept is impossible. Neither knowledge nor experience of any sort are possible without postulating a supernatural. The supernatural then is an extension of nature, and nature is not different in kind from the supernatural, but is, to speak paradoxically, a part of that supernatural." The author is rather in favor of Polytheism. "It is quite possible, of course, to conceive of a supernatural society ruled over by gods and demi-gods of great powers and enlarged perfections of character." The author objects to the public employment of prayer for "although it is an element of public worship, it is after all primarily a matter of individual communication to the power addressed." Among the platforms of religious organizations he selects as the best that of the Free Religious Association in the United States. The book is well written and everybody will find in it at least some of his pet notions; but all together form a strange mixture.



WHAT IS THE BIBLE? An inquiry into the origin and nature of the Old and New Testaments in the light of modern biblical study. By George T. Ladd, D. D., Professor of Philosophy in Yale University. New York: 1888. Charles Scribner's Sons.

It is considered strange that a freethinker should speak of the Bible with reverence and that a faithful Christian at the same time should critically search through its pages and publicly admit many of its deficiencies. However, it is not strange to those who have devoted their time and attention to the Bible—they can be blind neither to its greatness nor to its faults. Among the learned theologians of Germany the idea has long been abandoned that the scriptures are a literal inspiration of God; German freethinkers rail at churches, at dogmas, at the clergy, and at ecclesiastical institutions, but there is scarcely any reviling of the Bible. Prominent freethinkers have successfully used the Bible as their armory, for the Bible is full of radical ideas, and if Christ or some of the prophets would arise from their graves and preach as they did in former times, it is more than doubtful whether they would be allowed to speak freely. Prof. Ladd shows that the Bible is not what many of its sincere but mistaken defenders have assumed it to be; it is not what the current theology is accustomed to suppose. But he shows also that neither fidelity to the teachings of the Bible itself, nor adherence to the substance and spirit of the doctrine of the Church requires him to hold these opinions. We do not agree with the author in many points, which he as a faithful Christian perhaps considers essential, but we sympathize with the true religious spirit of honesty which declares that *the faith of the Christian cannot suffer from a knowledge of the truth*. Prof. Ladd concludes his work with the words of Prof. Delitzsch: "God is a God of truth! The love of truth, submission to the yoke of truth, abandonment of traditional view which will not endure the test of truth, is a sacred duty, and element of the genuine fear of God. 'Will ye be God's partisans?' exclaims Job indignantly to his friends, who assume to him the part of advocates for God, while they distort the facts on which the issue rests in *maiorum Dei gloriam*."

DIE MONISTISCHE SEELENLEHRE. Ein Beitrag zur Lösung des Menschenräthels. Von Carl du Prel, Ph. D. Leipzig: 1888. Ernst Günther.

Carl du Prel has made his name famous through his essay "The Struggle for Existence in the Skies," (*Der Kampf um's Leben am Himmel*), which has appeared in its third edition under the title, *Entwicklungsgeschichte des Weltalls* (Evolution of the Universe). Du Prel has thus introduced Darwinism into Astronomy, showing that the stars also have to struggle for the space they occupy and only the fittest will survive. Carl du Prel has in his latest publications ventured upon the dangerous ground of mysticism. He published in 1885 his *Philosophie der Mystik*, and in the work before us he has incorporated his ideas upon the nature of the soul. The author objects to Materialism and Spiritualism by attempting to conceive the idea of the soul monistically. But his idea of the soul is a materialistic spiritualism. He considers the soul as the thinking and organizing principle and deduces from his definition that the soul must find an embodiment of some kind. On this ground he builds his conception of an astral body (p. 154). Du Prel accepts also the idea of 'one's double' and explains it as an appearance of the astral body (Chap. VII, *Der Doppelgänger*; VIII, *Gelegenheitsursachen der Doppelgänger*; IX, *Die psychischen Ursachen der Doppelgänger*; X, *Die Thätigkeit des Doppelgängers*; XI, *Die Solidarität der Phantoms mit dem Körper*). In the last two chapters Du Prel discusses Death. *Die Entseelung des Leibes*, the disappearance of the soul in the body (disempsychosis) is the negative aspect of death. On page 280 he says: "In the balance, supersensible life rises according as the sense-life sinks. In sleep, somnambulism, and death we have three degrees of the *Entse-*

*lung* of the body. But these three degrees correspond to equivalent transcendental functions of a disembodiment of the soul (*Entleibung der Seele*). We can not approve of Du Prel's views and must object to his using the unverified reports of too credulous people and statements of somnambulist as established facts. The publisher (Ernst Günther, Leipzig) announces that they have in press another smaller work by Du Prel, which promises to be very interesting. Its title is *Die Mystik der alten Griechen*.

CHEAP BOOKS AND GOOD BOOKS. By Brander Matthews. New York: 1888. The American Copyright League.

This pamphlet is a revision and amplification of an 'Open Letter' published in 'The Century' for December, 1887, and of an address delivered before The Congregational Club of New York on the evening of February 20, 1888, and published in the 'Christian Union' of March 15, 1888. The author advocates an International Copyright. He says: "There are still a few who declare that the People must have cheap books, and that therefore the People will not permit the passage of any bill for International Copyright. \* \* \* But with infrequent exceptions, books are not now cheaper in America because there is free stealing from the foreigner. \* \* \* The books which are made cheaper by piracy are nearly all English novels." In a survey of the conditions of publishing in England, France, and Germany, it is shown that "what might seem, at first sight, to be a paradox, is only the exact truth. In America the cheapest books are not good books, for the most part; certainly they are not the best books. In Europe the best books are the cheapest." Mr. Matthews maintains that "this unfortunate state of affairs in this country is the result of the absence of International Copyright, and the inevitable instability of the book trade;" and he asserts also that "the consequences of the present unhealthy condition are injurious to the character of the American people. We now enjoy the privilege of piracy, as the dwellers on a rocky islet used to enjoy the privilege of wrecking—and we avail ourselves of this privilege only to the perdition of our souls. \* \* \* No one has more nobly spoken of the crime of book-murder than John Milton, and with a quotation from him I may fitly conclude: 'For books are not absolutely dead things, but do contain a potency of life in them to be as active as that soul was whose progeny they are; nay, they do preserve, as in a vial, the purest efficacy and extraction of that living intellect that bred them. I know they are as lively and as vigorously productive as those fabulous dragon's teeth; and being sown up and down may chance to spring up armed men. And yet, on the other hand, unless weariness be used, as good almost kill a man as kill a good book. Who kills a man, kills a reasonable creature, God's image; but he who destroys a good book kills reason itself, kills the image of God, as it were, in the eye. Many a man lives a burden to the earth; but a good book is the precious life-blood of a master-spirit, embalmed and treasured up on purpose to a life beyond life.'" The cover of Mr. Brander Matthews' pamphlet is neatly ornamented with two fac-similes, one an extract from a letter of Longfellow's which reads: "Whatever is just is for the benefit of all; and I wish we could have a law providing, between England and America, that a copyright taken out in either country shall be equally valid in both." The other fac-simile is a verse of J. R. Lowell's:

In vain we call old notions fudge  
And bend our conscience to our dealing,  
The ten commandments will not budge,  
And stealing will continue stealing.

SYSTEM OF ECONOMICAL CONTRADICTIONS; OR, THE PHILOSOPHY OF MISERY. By P. J. Proudhon.

This constitutes the fourth volume of Proudhon's Complete Works, and is uniform in style with the first volume, "What is Property?" The second and third volumes of the Complete



Works have not yet been published in English. The next volume to appear will be the fifth of the Complete Works,—that is, the second and final volume of the "Economic Contradictions." The Complete Works will comprise about fifty volumes, which are being published in quarterly parts of sixty-four pages each, as a periodical under the name of the "Proudhon Library." A prospectus giving full details of the enterprise may be had by applying to Benj. R. Tucker, Box 3366, Boston, Mass. As these are subscription books, no discount on them is given to the book trade, but subscribers to the "Proudhon Library" get them at a saving of about thirty per cent. The publication of Proudhon's Works must be considered as a meritorious act on the part of the editor of *Liberty*. We do not believe in Anarchism, but we acknowledge that the views of the father of Anarchism should be known and appreciated by everybody. Proudhon is a keen critic of the economical evils of his time, most of which are prevalent still. His remedy, however, it is to be feared, will not cure the evils, but will lead society to a speedy dissolution, for his remedy is Anarchism.

THE BEGINNINGS OF RELIGION. An essay by Thomas Skott Bacon. London: 1887. Rivingtons.

A book which deserves the attention of those who believe that they serve God in unreservedly accrediting what they think has been written by his authority. Instead of faithful investigation of facts, the author essays to state "what we ought to think of the beginning and course of Religion." Other Bible interpretations than submissive acceptance is declared to be "the very height of self-deluding folly." Mr. Bacon says on p. 209: "The more I think of it, the more I am persuaded that we can only wisely and safely take it as it reads and wait until God shall reveal to us more than thus appears." Max Müller is often quoted and severely criticised; the latter rejects for instance the notion of Hebrew being the original language of mankind and does not consider it worth his refuting, while Mr. Bacon informs us "that there is a 'real and a very material degree of evidence' for it."

SARA CREWE; OR, WHAT HAPPENED AT MISS MINCHENS. By Frances Hodgson Burnett. New York: 1888. Charles Scribner's Sons.

This book was read to a large family circle and not one of the children missed a syllable of it. If they were always so attentive at school, their teacher would never have any cause to complain. The book is good in every respect.

As the best book for young people who are familiar with German can be recommended the ILLUSTRIRTE WELTGESCHICHTE by Otto von Corvin, the second edition of which is revised by L. T. Diefenbach, published at Otto Spamer's, Leipzig and Berlin. The eight volumes can be had separately. The first volume, which has been received at this office as a specimen, treats of the history of antiquity including the Egyptians, Indians, Hebrews, Greeks and a great part of Roman history. It contains illustrations, six charts and nine plates. The language is excellent and can serve throughout as a specimen of fluent, narrative style. The price of each volume varies according to size from \$2 to \$3.

ALLERLEI DEUTSAMES. Bilder und Geschichten von Hans Grasberger. Leipzig: 1888. A. G. Liebeskind.

Hans Grasberger is a Vienna journalist and art-critic. His former publications are mostly original Austrian, and partly written in Austrian dialect. We mention *Nix für ungut*, *Schnaderhüpfeln* and *Plödersan Geist'n Geschichte'n* (both published by A. G. Liebeskind, Leipzig). The title of his latest publication, *Allerlei Deutsames*, is one of those phrases that cannot be translated. It means: 'All kinds of things that set us a-thinking.' The little vol-

ume contains twenty short and suggestive tales, some of them are phantastic, some humorous, some traveler's adventures, and almost all exhibit a vein of fine and poetic sentiment.

DER ALTINDISCHE GEIST. In Aufsätzen und Skizzen von Michael Haberlandt. Leipzig: 1887. A. G. Liebeskind.

Mr. Haberlandt is a member of the editorial staff of the *Neue Freie Presse* of Vienna and has published many essays and sketches on early India in the columns of this journal. They are now gathered in a neat little volume of 352 pages in large 12mo. The book contains fifty-seven articles; all of them are popular and many extremely interesting. Among other things we learn that the biblical expression "I am Alpha and Omega, the beginning and the end, the first and the last," is of Hindoo origin. Certainly it is not a Greek, nor a Jewish, nor a peculiarly Christian idea to employ a grammatical simile for describing the omnipresence and eternity of God. This is the method of the contemplative and philosophical Indian. We read in the *Rigveda-Gita*, the song of Solomon in the philosophical literature of India: "I am the A among the letters and the bond of union in their composition (viz., in the word), I am the eternal fate and the omnipresent creator. And the Upanishades praise the name of *Purā-purā-vastu* as the first and the last, 'the beginning and the end of the eternal Brahman.'

CHIPS FROM A TEACHER'S WORKSHOP. By L. R. Klemm, Ph. D.

Formerly Supervisor of German Department Public Schools, Cleveland, O.; Principal of a Normal Department, Cincinnati, O., etc. Boston: 1888. Lee & Shepard.

A meritorious book, the author of which shows great discretion and sound judgment. We quote from p. 126 the following passage: "There is in every nation, as in the life of every individual, a time of plasticity. During this time the human being develops his individuality. The English settlers in America adapted themselves to surrounding circumstances and developed a type peculiarly American. In the same way the mode of teaching and learning had developed certain peculiar traits, had become typical. We all know what caused the great abundance of *self-made men*: they were, and still are, typically American. Now, the typical American boy gained his knowledge as the man gained his fortune,—namely, without assistance. What he is and has, he is and has by his own exertion, attended by much waste of time and energy. That the typical American teacher of *your kept school*, *heard recitations*, *assigned lessons*, *examined*, and *tested daily and hourly*, we can comprehend—and pardon. But life, and the American people have changed. The old American type is fast receding, since untold millions of immigrants have arrived. The Union is a gigantic crucible, within which the representatives of the different nations are fused to a homogeneous whole. Each nation adds some of its virtues, and, alas! some of its vices, to the fusion. We are at present in a second era of plasticity. When the great influx of foreign elements ceases, the mixture in the crucible will become clear, and the future type of the American school will have been developed. It will not be European, rest assured; neither will it be American, as that term is now understood. It is devoutly to be hoped that the pernicious marking system, immoral competition, constant testing, and soulless memorizing of the printed page, will not be leading features of the new American school."

GUATEMALA THE LAND OF THE QUETZAL. A sketch by William T. Brigham, A. M. New York: 1887. Charles Scribner's Sons.

Guatemala and Honduras are countries strangely neglected by the American traveler as well as by the American merchant. There are thousands of square miles of wholly unexplored territory between the low Isthmus of Tehuantepec and the Lake of Nicaragua. And yet, Mr. William T. Brigham says: "No country on the



northern half of the American continent has a finer climate or more beautiful and varied scenery, or is a more attractive field for the genuine traveler." Mr. Brigham believes in the increasing importance of Central America, both geographically and politically. He has collected for his own use and printed for the use of others notes made during three journeys in Guatemala and Honduras. In his book he seeks also to awaken among Americans greater interest in a land which was the cradle of a peculiar civilization on this continent, and whose recently explored monuments are most justly claiming the study and admiration of archaeologists in Europe as well as in America. The illustrations of this book are made from photographic plates taken by the author himself, so that accuracy has been secured. The book is soberly written and free from sensational stories, hair-breadth escapes and other things which spoil many accounts of travelers. The charts are valuable additions, and as a whole the neat and stately volume deserves the attention of parents and school librarians.

Under the title of "A Printer's Paradise," Theodore L. De Vinne, the printer of *The Century*, has contributed to the June number of that magazine a highly interesting, illustrated article on the Plantin-Moretus Museum at Antwerp.

FIRST STEPS WITH AMERICAN AND BRITISH AUTHORS. By *Albert F. Blaisdell, A. M.* Boston: 1888. Lee and Shepard.

The purpose of this book is to provide students with a judicious and methodical introduction to the English classic texts. The plan is practical and the selection of pieces is a good one.

NEXT DOOR. *Clara Louise Burnham.* Paper Series. Boston: Ticknor & Co.

A light novel, with no seriously objectionable features perhaps, but on the other hand with nothing sufficiently strong or sensible in the plot, neither careful or finished in the execution to repay the reading. C. P. W.

ZOOLOGICAL SKETCHES. A Contribution to the Out-door Study of Natural History. By *Felix L. Oswald.*

Is one of the most interesting books of juvenile literature, which should not be missing even in the most limited nursery-libraries of American children. It is fascinating from the beginning to the end and teaches Zoölogy by way of entertainment. It is a pleasure to look at the many illustrations which have evidently been selected with great care, for all of them are characteristic of the psychical life of animals and many possess an additional zest of humor which will make the book the more dear to children.

THE MINISTER'S CHARGE. *W. D. Howells's* Paper Series. Boston: Ticknor & Co.

The Minister's Charge stands at the head of Mr. Howells's second-best stories, classing A Modern Instance, and Silas Lapham among the best. It is not only marked by the author's well known felicity of style, delicate humor and photographic reality, but by a serious moral purpose which is oftener manifest in Mr. Howells's works than his critics are willing to admit. In the principal character of the book, Lemuel Barker, we have one of the author's finest pieces of characterization, a raw, untutored country youth, fired with a noble ambition for the delights and opportunities of the cultured life of his social superiors, yet having a plain and devout integrity within his bosom that prevents him from ever basely truckling to unworthy motives, or ignobly yielding his ideal of right and goodness for any worldly gain or advantage. The character of Mr. Sewall, the accomplished, refined but over-scrupulous Unitarian minister, is also marvelously well drawn. C. P. W.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

### CHAPTER XVII.

THE DECEPTION OF MR. HUMMEL.

In the houses of the park there reigned peace, forbearance and secret hope. Since the arrival of Ilse the old strife seemed to have ceased, and the hatchet to have been buried. It is true that Mr. Hummel's dog snarled and snapped at Mr. Hahn's cat and was boxed on the ear in return; and that the porter, Rothe, of A. C. Hahn, declared his contempt of the storekeeper of the factory of Mr. Hummel. But these little occurrences passed away like inoffensive air-bubbles which rise in the place where there has been a whirlpool of enmity. The intercourse between the two houses flowed on like a clear brook, and forget-me-nots grew on its banks. If a misanthropical spell had adhered to the ground at the time when Madame Knips ruled there alone, it had now been expelled by female exorcists.

One morning, shortly before the fair, a book-seller's porter placed a pile of new books on the Doctor's writing-table; they were the advance copies of the first great work he had written. Fritz opened the book and gazed at the title-page for a moment in quiet enjoyment; then he hastily seized his pen, wrote some affectionate words on the fly-leaf and carried it to his parents.

The book treated, to use Gabriel's expression, of the old Aryans as well as of the old Germans; it entered into the life of our ancestors before the time in which they took the sensible resolution of making pretty nosegays on the Blocksberg and rinsing their drinking horns in Father Rhine. It was a very learned book, and so far as the knowledge of the writer reached, it revealed many secrets of antiquity.

It was not necessary for strangers to inform the father and mother of the importance of the book which Fritz now brought them. The mother kissed her son on the forehead, and could not control her emotion when she saw his name printed in such large and beautiful characters on the title-page; but Mr. Hahn took the book in his hands, and carried it into the garden. There he laid it on the table of the Chinese temple, read the dedication several times and took a turn or so about the pavilion, looking in again occasionally, in order to observe whether the style of building harmonized well with the book; then he cleared his throat in order to master his joyful emotions.

Not less was the pleasure in the study of the Professor; he went hastily through the book from beginning to end. "It is remarkable," he then said, much pleased, to Ilse, "how boldly and firmly Fritz grapples with the subject; and with a self-control, too, for which I should not have given him credit. There is

\* Translation Copyrighted.



much in it that is quite new to me. I am surprised that he should have concluded the work so quickly and quietly."

What the learned world thought of the Doctor's book may be known from many printed eulogies. It is more difficult to determine what effect it had in his own street. Mr. Hummel studied a detailed review of the work in his paper, not without audible marks of disapprobation however; he hummed at the word Veda and grumbled at the name Humboldt, and he whistled through his teeth at the praise which was accorded to the deep learning of the author. "When at the conclusion the reviewer formally thanked the Doctor in the name of science, and urgently recommended the work to all readers, Mr. Hummel's humming broke into the melody of the old Dessauer, and he threw the paper on the table. "I do not intend to buy it," was all that he vouchsafed to say to his wife and daughter. But in the course of the day he cast an occasional glance at the corner of the hostile house where the Doctor's room was, and then again at the upper story of his own house, as if he wished to weigh the comparative merits of both the learned men and their abodes.

When Ilse told Laura her husband's opinion of the book, Laura colored a little, and replied, throwing back her head: "I hope it is so learned that we need not meddle with it." Yet this disinclination to meddle with the book did not prevent her some days later from borrowing the book from the Professor, upon the plea that she wished to show it to her mother. It was carried to her own little room, where it remained for a long time.

Among the other inhabitants of the street, the importance of the Hahn family—whose name had acquired such renown, and whose Fritz was praised so much in the papers—was greatly increased. The scales of popular favor sank decidedly on the side of this house, and even Mr. Hummel found it expedient not to object to his family's speaking with moderate approbation of their neighbor's son. When Dorchien, as sometimes happened, met Gabriel in the streets, she even ventured to accompany him for a few minutes into the courtyard of the enemy, in spite of the growling of the dog and the sinister frowns of the master.

One warm evening in March she had said a few civil words to Gabriel in passing and was tripping neatly across the street to her own house, with Gabriel looking after her full of admiration, when Mr. Hummel came out just in time to witness the last greeting.

"She is as pretty as a red-breast," said Gabriel to Mr. Hummel. The latter shook his head benevolently. I well see, Gabriel, how the wind blows, and I say nothing, for it would be of no use. But one piece of

good advice I will give you. You do not understand how to deal with women; you are not gruff enough with the girl. When I was young they trembled at the faintest movement of my handkerchief, and yet they swarmed about me like bees. This sex must be intimidated and you'll spoil all by kindness. I think well of you, Gabriel, and I give you this counsel therefore as a friend. Look you, there is Madame Hummel. She is a strong-willed woman, but I always keep her under restraint; if I didn't growl, she would. And, as there must be growling, it is more agreeable for me to do it myself."

"Every animal has its ways," replied Gabriel. "I have no talent for acquiring the habits of a bear."

"It can be learnt," said Mr. Hummel, benignantly. He raised his eye-brows, and made a sly grimace. Something is in progress in the garden over there; they are probably speculating again on some new arrival, to which I, in due time, shall take upon myself, under all circumstances, to give the right name—he lowered his voice—; "something anonymous has been unpacked, and brought out into the garden." With a feeling of indignation at his own caution, he continued: "Believe me, Gabriel, the world is growing cowardly from this over-production of children; and people are so crowded that freedom ceases to exist; life is now slavery from the cradle to the grave. Here I stand on my own ground, and if I choose to dig a hole on this spot to the centre of the earth, no man can prevent me; and yet, on my own property, we cannot express an outspoken opinion; and why? Because it might be heard, and displease the ears of strangers. To such a point have we come; a man is the slave of his neighbors. Now, only think, I have but one neighbor opposite; on the other side I am protected by the water and the factory, yet I must swallow the truth, as I dare not speak out beyond my boundary. He who is surrounded on all sides by neighbors must lead a lamentable life; he cannot even cut off his head in his own garden without the whole neighborhood raising a cry because the sight is not pleasing to them." He pointed with his thumb to the neighboring house, and continued, confidentially: "We are reconciled now; the women would not rest until we were. I assure you they lacked the true spirit to carry on a quarrel over there; the affair became tedious and so I gave in."

"Yet it is well that all is settled," said Gabriel. "If the fathers quarrel, how can the children meet on good terms?"

"Why shouldn't they make faces at each other?" returned Mr. Hummel, crossly. "I can't bear this everlasting bowing and scraping."

"Every one knows that," replied Gabriel. "But if



Miss Laura meets the Doctor in our house, which often happens, she surely cannot growl at him."

"So they meet often?" repeated Hummel, thoughtfully. "There again you have an instance of this overcrowding; they can't get out of each other's way. Well! I can trust to my daughter, Gabriel; she has my disposition."

"I wouldn't be so sure of that," replied Gabriel, laughing.

"I assure you she is quite of my mind," affirmed Hummel, decidedly. "But, as to this cessation of hostilities, you need not rejoice so much at it; for, depend upon it, it cannot last long between our houses. When the ice has thawed, and the garden amusements begin, there will be trouble again. It has always been so and I do not see why it should not continue so, in spite of reconciliations, and in spite of your new mistress, for whom I nevertheless have great respect."

The conversation, which had been carried on in the garden, was interrupted by a dark, solemn-looking man, who presented a large letter in a tinted envelope, and introduced himself to Mr. Hummel, bringing him an invitation for his absent daughter to undertake the office of godmother to a baby that had just been born to limit the space in the world still more. To this invitation no objection could be made; the young mother, the wife of a lawyer, was Laura's friend, and the daughter of her godmother. It was an old connection of the family, and Hummel, as father and citizen, duly accepted the invitation.

"For whom is the other letter you have in your hand?" he asked of the messenger.

"For Doctor Hahn, who is to stand with Miss Laura."

"Indeed!" said Hummel, ironically; "matters are going at a great pace. Take your letter over there. Did I not tell you so, Gabriel?" he added, turning to his confidant. "Scarcely reconciled before the tribunal, and at once sponsors together; who may know but that to-morrow morning the old scare-crow himself will come over and offer to be 'hail fellow well met' with me. There again you have the consequences of over-crowding, and of Christianity too. This time my poor child is the victim."

He took the letter into the room and threw it on the table before his wife and daughter.

"This comes from reconciliation, weak women," he cried, ill-naturedly. Now you will have nurse, midwife, godfather, and all, about your heels."

The ladies studied the letter, and Laura thought it inconsiderate in her godmother to have chosen just the Doctor for her partner.

"That's to accommodate the sponsors' carriage," exclaimed Mr. Hummel, mockingly, from the corner. "It was made to carry two at once. Now, that fellow

Humboldt will come over here in white gloves in order to fetch you to church, and I believe he has impudence enough to send you a sponsorial present."

"If he did not do so, it would be an insult," replied the wife. He must do it, or it would give occasion for people to talk. We cannot object to it; he will send a basket of flowers with gloves for the god-mother, and Laura will send him in return the pocket-handkerchief, as is the custom among our acquaintances. You know that Laura's godmother thinks a great deal of these things."

"His flowers in our house, his gloves on our fingers, and our handkerchief in his pocket!" said the master of the house, querulously; "that will be right merry."

"I beg of you, Hummel," rejoined his wife, displeased, "do not annoy us by finding fault with the civilities which are unavoidable on such an occasion, and of which no one takes advantage."

"I thank you for your civilities which one cannot avoid, and to which no one attributes anything. Nothing is so insupportable to me, among the people here, as their eternal obeisances before one's face, whilst they pull one to pieces behind one's back."

He left the room and slammed the door behind him.

The mother then began:

"He has nothing really to say against it; he only wishes to maintain his character for sternness. It is not absolutely necessary that you should send the Doctor a present on this occasion, but you still owe him some little attention from that encounter with the shepherd."

Laura was reconciled to the thought of becoming godmother with the Doctor, and said:

"I will make a design for the corner of the handkerchief, and will embroider it."

The following morning she went out to buy cambric. But Mr. Hummel also went out. He visited an acquaintance who was a furrier, took him confidentially aside, and ordered a pair of gloves of white cat's skin for a small hand; he directed that a cat's claw be fastened at the point of each finger. But he wished it to be a delicate one of an unborn cat, or failing in that, of a very young kitten, and that the claw should stand out stiffly. Then he entered another shop and asked for some colored printed cotton pocket-handkerchiefs—such as one buys for a few pennies—and chose one black and red, with a frightful portrait, that just suited his frame of mind. This purchase he put in his pocket.

The morning of the christening arrived. In the house of Mr. Hummel the flat-irons clattered; the mother added some last stitches; and Laura tripped busily up and down the stairs. Meanwhile, Hummel



wandered back and forth between the door of the house and factory, watching every person that entered. Spitehahn was sitting on the threshold, growling whenever the foot of a stranger approached the door of the house.

"Show yourself as you are, Spitehahn," grumbled Hummel, approaching his dog; "and catch hold of the woman from yonder by the dress; she will not venture in if you keep watch."

The red dog answered by showing his teeth maliciously at his master.

"That's right," said Hummel, and continued his walk.

At last Dorchen appeared at her own house-door, and tripped with a covered basket in her hand to the steps of Mr. Hummel's house. Spitehahn rose grimly, uttered a hoarse growl, and bristled his hair.

"Call the frightful dog away, Mr. Hummel," cried Dorchen, snappishly. "I have a message to Miss Laura."

Hummel assumed a benevolent expression, and put his hand in his pocket.

"The ladies are at work, my pretty child," he said, drawing out a heavy piece of money; "perhaps I can attend to it."

The messenger was so startled at the unexpected politeness of the tyrant, that she made a mute courtesy and let the basket slip out of her hand.

"It shall be attended to carefully," said Mr. Hummel, with an engaging smile.

He carried the basket into the house, and called Susan to take it to the ladies; after which he went into the hall again, and stroked the dog. It was not long before he heard the door of the sitting-room fly open and his name called loudly in the hall. He entered cautiously into the ladies' room, and found them in a dreadful state of disturbance. A beautiful basket was standing on the table, flowers lay scattered about, and two little fur gloves, with large claws at the ends of the fingers, lay on the floor, like paws cut from a beast of prey. Laura was sitting before them sobbing.

"Holloa," cried Mr. Hummel, "is that one of the sponsorial pleasantries."

"Henry," cried his wife, vehemently, "your child has received an insult; the Doctor has dared to send these to your daughter."

"Ha!" cried Hummel; cat's paws, and with claws! Why not? They will keep you warm in church; you can lay hold of the Doctor with them."

"It must be a joke," cried Laura, with the hot tears flowing down her cheeks; "it is because I have sometimes teased him. I should never have believed him capable of such rudeness."

"Do you know him so well?" inquired Mr. Hummel.

Well, if it is a joke, as you say, take it as a joke then; this emotion isn't necessary."

"What is to be done now?" cried the mother; "can she still stand godmother with him after this insult?"

"I should think so," replied Mr. Hummel, ironically; "this insult is a childish affair compared to others—compared to house-building, bell-ringing, and dog-poisoning. If you can stomach all that, why not cats' paws, too?"

"Laura has hemmed and embroidered a handkerchief for him," exclaimed the mother; "and she had taken the greatest pains to finish it in time."

"I will not send it to him," cried Laura.

"So you hemmed and embroidered it yourself?" rejoined Hummel. "It is charming to live in friendship with one's neighbors. You are weak women-folk, and you take the matter too seriously. These are courtesies which one cannot avoid, and to which no importance is attached. Do as you said you would. You must just send the thing over to him. You must not give him or any one else occasion to make remarks. Keep your contempt to yourself."

"Father is right," cried Laura, springing up; "away with the handkerchief, and my account with the Doctor will be closed for ever."

"That's right," assented Hummel. "Where is the rag? Away with it."

The handkerchief lay ready on a plate, wrapped up in fine blue paper, and also covered with spring flowers.

"So this is the hemmed and embroidered thing? We will send it over immediately."

He took the plate from the table, and carried it quickly into the factory; from thence the blue packet went, with many compliments, to the godfather in the house of the enemy.

Mrs. Hahn brought the card of greeting and the present to her son's room.

"Ah, that is a charming attention," remarked the Doctor, closely examining the flowers.

"It is not so customary now-a-days to send presents to the gentlemen too," said the Doctor's mother. "I always thought it such a pretty custom."

She unfolded the paper inquisitively, and looked up in astonishment. A printed cotton handkerchief lay within, as thick as leather and woven with coarse threads. It might be a mask only, and in this hope she unfolded it, but a frightful caricature alone appeared in diabolical colors of red and black.

"That is not a nice joke," said the mother, vexed.

The Doctor looked downcast. "I have sometimes teased Laura Hummel. This probably has reference to some bantering that has passed between us. I beg of you, mother, to place the flowers in a glass."



He took the handkerchief, concealed it in a drawer, and again bent over his writing.

"I should not have expected this of Laura," continued the mother, much disturbed. But as her son did not encourage further complaints, she arranged the flowers for him and left the room, pondering upon the mortification of her child.

The carriage drove up and the Doctor got into it to fetch the godmother.

"Our doors are so near together," said Hummel, who was standing at the window, "that he will only just have time to creep out from the other side."

After some difficulty in turning, the carriage arrived at the steps of Mr. Hummel. The servant opened the door, but before the Doctor could jump down Susan appeared on the steps and called out:

"Do not take the trouble of entering, the young lady will come immediately."

Laura swept down the steps, all in white as if veiled in a snowcloud; and how pretty she looked! Her cheeks were indeed paler than usual, and her brows were gloomily knit, but the sad expression gave an enchanting dignity to her countenance. She avoided looking at the Doctor, only slightly moving her head at his greeting, and when he offered his hand to assist her, she passed by him and seated herself in her place as if he were not there. He had some difficulty in finding room next to her; she nodded, ignoring him, to Mr. Hummel, who was standing on the steps looking far more cheerful than his child. The horses trotted slowly on; Laura looked neither to the right nor to the left. "It is the first time she officiates as godmother," thought the Doctor, "that causes this solemn mood; or perhaps she is repentant because of the colored handkerchief!" He looked at her hands; the gloves that he sent were not to be seen. "Have I offended against etiquette?" he thought again, "or were they too large for her little hands?"

"He is silent," she thought, "that is his bad conscience; he is thinking of the cat's claws, and has not a word of thanks for my pocket-handkerchief; I have been sadly mistaken in him." This consideration made her so sorrowful that tears again rose to her eyes; but she pressed her lips tightly together, squeezed the thumb of her right hand, and silently counted from one up to ten, an old recipe she had formerly used for restraining vehement feeling.

"Things cannot go on so," thought the Doctor, "I must speak to her.—You have not been able to use the gloves that I ventured to send you," he began modestly; "I fear I have made a bad selection."

(To be continued.)

And what is reason? Be she thus defined:  
Reason is upright stature in the soul.—Young.

### Three Introductory Lectures

## The Science of Thought.

Delivered at the Royal Institution, London, during the month of March, 1887.

First published in THE OPEN COURT of June, July, and August, 1887.

BY F. MAX MÜLLER.

Chicago: 1888.

THE OPEN COURT PUBLISHING COMPANY.

Neatly Bound in Cloth. Price, 75 Cts.

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PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRESIDENT.

DR. PAUL CARUS, EDITOR.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 42. (Vol. II.—16.)

CHICAGO, JUNE 14, 1888.

} Two Dollars per Year.  
} Single Copies, 20 cts.

## BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.

BY FELIX L. OSWALD, M. D.

Part IX.

### EDUCATION.

In the specific development of individuals, education plays the part which artificial selection plays in the development of the race; and there is an unmistakable analogy in the phenomena of physical culture and of moral training. The inculcation of moral (or immoral) principles is a mental grafting process. The type of the preceptor's mind not only impresses itself upon the mind of the pupil, but the mental scion grows and develops with the growth and development of the receptive brain. "An idea in the brain," says Oliver Wendell Holmes, "is not a legend carved on a marble slab; it is an impression made on a living tissue, which is the seat of active nutritive processes. Shall the initials I carved in bark increase from year to year with the tree? and shall not recorded thought develop into new forms and relations with my growing brain?"

That growth may even transcend the development of the parent-tree. New principles and new tendencies expand from generation to generation, and a fructifying thought may bear its fruit in subsequent ages and propagate a more and more abundant crop, by the same law of survival which favors the propagation of the most vigorous plants and the "fittest" competitors in the arena of animal life.

An even more striking analogy in the process of physical and moral development is the superior efficacy of early training. The *Ur-formen*, the primordial types of life, are reproduced in the germs of every new birth, and the development of individual organisms can be modified by varying educational influence almost as strangely as varying circumstances modified the development of the species—the *lower* forms, *i. e.* those nearest the earlier type, being in both cases the more plastic ones. Mosses and grasses undergo curious variations under varying conditions of soil and climate; fungi derived from the seed of the same parent-plant, diverge according to their incidental base of development, so much, indeed, that the germ fastening upon decaying animal tissue will produce forms differing beyond the possibility of identification from the forms developed from a sister-germ, nourished by the de-

composition of vegetable tissue. Lubbock's researches have established the equally curious fact that modifications of food alone are sufficient to develop a queen-bee from the *larva* of any working-bee, but that no change of diet will ever modify the organism of a fully-developed worker. And only in childhood the brain seems capable of receiving impressions which modify the moral tendencies for better or worse and give arbitrary dogmas the force almost of congenital instincts. Arthur Schopenhauer held that the human mind, like a flowering plant, has only a brief spring-time of development and that all moral and mental results of after-life are only the fruits of germs sown in childhood. "Hence," he adds, "the educational solicitude of dogma-mongers who renounce the hope of converting fullgrown skeptics, but perpetuate their power by monopolizing the training of youth, well knowing that early impression will secure the reception of any tenet, no matter how extravagantly absurd."

Artificial selection has varied the *Ur-form* of certain domestic animals to a degree almost precluding the belief in the possibility of a common origin of such divergent types as those of the Italian dwarf greyhound, for instance, and the gigantic mastiff, or the smallest varieties of Thibetan ponies compared with the largest breeds of Norman cart-horses. Yet hardly less striking moral contrasts have been evolved from a common ancestral type, often by historically demonstrable influences of contrasting education.

Extremes of magnanimity and intellectual vigor may characterize individuals whose near relatives have been degraded to ultra-bestial extremes of vice and superstition:

"Higher than Indra's you may raise your lot,  
Or sink it lower than the worm and gnat."—

by the influence of education, as well as by the persistent efforts of self-devotion. The very standards of good and evil may be modified by early training, and what Emerson calls "the influence of the social atmosphere." "The legal sanction of slavery," says Henry Thoreau, "seems to me as preposterous as a plan for turning our fellow-men into sausages," yet the "social atmosphere" of the cotton-states had imbued thousands of intelligent natives with a radically opposite view. The necessity and propriety of this "peculiar institution" seemed to the children of the south-



ern planter so self-evident that they saw no alternative of the current theory which associated the doctrine of abolition with all sorts of ignoble motives, beyond doubt from an inability to realize a degree of intellectual aberration sufficient to explain a theory so glaringly at variance with the logic of facts. "Willful blindness" seemed the only adequate explanation for a reluctance to relinquish such absurdities.

Our aversion to the strict enforcement of Sabbatarian "Blue Laws" is far exceeded by the proclivities of our Spanish-American neighbors, and the storm of indignation provoked by every attempt to interfere with their bull-fights is countenanced by the sympathy of some of their foremost philanthropists. "Are they really crazy, those Yankee bigots," asked a Mexican alcalde of my acquaintance, "or is all that rant only a pretext for fastening a quarrel, and skinning us out of another strip of territory? What in the name of common sense can be their real objection to the pastime of witnessing a *matanza*, or even a cock-fight? Don't they know that a bull would a hundred times rather die fighting than to be helplessly chained and butchered in a slaughter-house? A man wounded in a rough-and-tumble fight hardly feels his injuries in the excitement of the scuffle; but ask him how he feels if the Indians tie him to a stake and whet their butcher-knives. And where is the "cruelty" in permitting a man to risk his life for the amusement of his patrons? Do they suppose that we force our bull-fighters and make them fight against their will? Gran Dios! There are five-hundred applicants for every vacancy! The glory of an arena triumph is the day-dream of our young men, and I have seen one of them shed tears of mortification at the failure of his candidacy for the position of an assistant-matador. The same about cock-fights. Is it possible that those moralists of yours have never seen a couple of roosters volunteer a duello on their own dunghill? Can there be a doubt that Nature prompts them to fight? And are they any the worse for an assembly of spectators?... And, aside from all that, every open-eyed observer ought to know that circus games keep the rabble from much worse pastimes. Close the arena and you open a dozen rum-shops."

A good deal, of course, might have and has been said on the other side; and the charge of "willful blindness" would be exactly analogous to the recriminations of Christian Wolff's disputants who argued the color of a landscape which the one was contemplating through a pair of red, the other through a pair of blue spectacles. Education thus will bias the judgment of the most honest inquiries after the lessons of truth or of righteousness, and moral obtuseness in one respect may be offset by the activity of moral sympathies in many others. The same Spaniards, for instance, who utterly fail to comprehend the objections of our

anti-circus moralists relieve the wants of human distress with a heart-born compassion as different from our Northern "charity on general principles" as the emotional fervor of their piety differs from the routine-religion of our Sabbatarian stock-jobbers.

Education has specialized their sympathies; and is it not possible that the same explanation might refute a plurality of the favorite arguments against the brutalizing influences of that Paganism that countenanced the mutual butchery of the Roman gladiators? The circus-combats of ancient Italy were developed from the public contests of military champions, who gloried in their disregard of wounds and death, a form of stoicism, then valued as the very superlative of manly virtue. The author of "Latin Christianity" admits that the passion for *circenses* was shared by some of the noblest men of Imperial Rome, poets, philosophers, and patriotic statesmen; and many of the sport-loving pagans who failed to understand the motives of the Christian clamor for the abolition of their favorite pastime would have been equally unable to comprehend the inhuman fanaticism which soon after impelled those same moralists to drench the land with the blood of freethinkers and dissenters. Lecky has collected conclusive evidence in support of his theory that the "Persecution" of Christians by their Pagan rivals was prompted by purely political motives. The anti-physical tenets of the Galilean Messiah were dreaded as subversive to the basis of social welfare, but the most zealous persecutors of his followers extended their traditional tolerance of foreign religions to all other creeds of the superstition-teeming East: fire-worshippers, Brahmins, and Egyptian mystics flocked by thousands to the capital of the universe and exercised their *rites* with a freedom often denied by the despots of their native lands. Only a few weeks ago (April 25, 1888), a rope-dancer at Steubenville, Ohio, met her death by the sudden breaking of the wire-rope; yet half a week after her employers resumed their exhibition with a new performer. When a similar accident happened in the streets of pagan Rome, the protests of the populace induced the Government to interdict exploits of that sort, unless the performer would obviate the risk by means of a stout net, spread out beneath the entire length of his rope. Children were treated with leniency, the disciples of skeptic philosophers enjoyed an abundant measure of tolerance, and altogether the humanitarian spirit of pagan civilization compares favorably with that of Christianized Europe during the thousand years following the conversion of Constantine. Even the sternest disciplinarians of republican Rome yielded to appeals that would have failed to move the fanaticism of mediæval Inquisitors. Their instinctive love of benevolence erected altars to the genius of Mercy, but education trained the mani-



festations of that instinct to specific standards of right and wrong.

The mental and moral disposition of individuals may be regarded as a result of a struggle for supremacy between the influence of hereditary tendencies and the influence of education, in that widest sense including the "discipline of circumstances." The relative predominance of those factors depends generally on the earlier or later incipience of systematic education. History abounds with instances of "renegades" abandoning their civilized educators and rejoining their barbarous kinsmen. Herman the Cheruscan, Spartacus, and Abd-el-Kader led the revolt of their oppressed countrymen and taught them to fight despotism by its own system of superior strategy, but their defection was the natural result of *earlier* educational influences, reacting successfully against the training of later years: They had passed their childhood in the atmosphere of freedom. Australian savages who had been attracted by the *cuisine* of the English mission-houses and were entrusted with the duties and privileges of assistant missionaries, almost invariably whittled their crosses into boomerangs and returned to the bush. Prince Wittekind, after being forced to "crawl to cross," was even persuaded to attend the convent school of the Frankish colony, but smashed the skull of the first abbot who undertook to enforce the by-laws of monkish discipline, and fled to the fastnesses of the Westphalian forest. The posterity of those stiffnecked Westphalians, by the clerical control of infant-schools, have since been converted into the most submissive followers of the infallible church. The Turks, too, knew to appreciate the value of early training. For nearly a century their Janitzares were recruited from the infant sons of their Christian captives, and by a peculiar combination of religious and military training were transformed into zealous and valiant champions of the Crescent.

#### THE INDIVIDUALITY OF ATOMS AND MOLECULES.

BY REV. R. H. HIGGINS, M.A.  
MOLECULES.

The molecule of water  $H_2O$  has a *bios*\* of its own, which, as we have seen, does not extinguish the *bios* of the oxygen atom, or the *bios* of the double hydrogen atom. We are satisfied that the *bios* of the molecule  $H_2O$  is in some way derived from its component atoms. Yet they have not, in combining, destroyed their respective *bioi*. Surely, this looks very much like life *which can spend and not be spent*; but not in the least like mechanical action, which can do no such thing.

Add a single incandescent lamp to a series of a

thousand, adjusted so as to use up the current supplied by a dynamo; all the other lamps must suffer a corresponding loss. It is not uniformly so with life, which in its lower powers is indeed spent in spending. A plant sacrifices its life for the seed. In a living organism, reproduction is often naturally associated with death. But in the higher powers of life is realized the adage "there is that scattereth and yet increaseth." In the teacher, the composer, the artist, the poet, and the lover, the goings forth of life have for their issue the power of living more abundantly.

It may be replied: Why use such a term as *bios*, and why not at once say the "properties" of the atom? Because a mass that is a mere quantity or a fragment and has no individuality, may have properties. Our contention from the first has been that we are speaking of individuals, not of bits or of fragmentary masses.

The molecule of water is a simple example, but it will suffice to illustrate certain features in the relations between atoms and molecules.

1. The resulting molecule,  $H_2O$ , is as purely an individual as the atom H, or O.
2.  $H_2O$  derives its *bios* from the *bioi* of H and O.
3. No one from his present acquaintance with H and O could predict the characters of the *bios* of  $H_2O$ , resulting from their combination.
4.  $H_2$  and O do not extinguish their *bioi* whilst entering into the constitution of another *bios*.

Such are features in the process of chemical combination.

In the above list, substitute the term Animal, or Plant, for  $H_2O$ ; and the terms Sperm-cell and Germ-cell for H and O, leaving out the words molecule and atom. All the predications will hold good, and be fairly descriptive of features in the process of fertilization.

1. The animal or plant is as purely an individual as the sperm-cell or the germ-cell.
2. The animal or plant derives its *bios* from the *bioi* of the sperm-cell and the germ-cell.
3. No one ignorant of the history of the cells could, from ever so searching an investigation into the sperm-cell and the germ-cell, predict the characters of the *bios* of the animal or plant resulting from their combination.
4. The sperm-cell and the germ-cell do not extinguish their *bioi* whilst entering into the constitution of another *bios*—that of the resulting animal or plant; for inherited characters transmitted through the sperm-cell or the germ-cell sometimes do not make their appearance till life is far advanced.

It seems a reasonable inference that what occurs in the comparatively simple molecule,  $H_2O$ , occurs also in the highly complicated molecule of the carbon products, in which perhaps twenty or more atoms

\* The *bios* is intended to denote that primordial potency, by virtue of which the atom possesses and exercises elective affinity, and whatever else may unite to make up its idiosyncrasy as an individual.



combine to form an individual molecule. It seems also probable that not one of these atoms wholly loses its *bios*; but it is quite plain that a new *bios* and a new individuality have made their appearance in the new complicated molecule.

A single molecule may contain atoms in number from 2 or 3 up to 300 or 400.

The highly compound molecule of the carbon product has, therefore, not only a peculiar *bios* of its own, it is full of constituent *bioi*, and probably reaches the highest form of individuality capable of being possessed by a molecule.

There are, it may be, seventy kinds of atoms; but the number and variety of molecules exceed all computation or conception.

It is one of Nature's ways to multiply individuals immeasurably in excess of the kinds of elementary constituents. It is so amongst the highest known individuals, the members of the animal and vegetable kingdoms. There are frequently more living individuals in a wayside pool of water than there are diverse kinds of animals and plants known in the whole world.

We may now proceed to consider the combination of molecules in the simplest organism—the amœba. The still more primitive moneron, if not wholly a hypothetical animal, is very unfamiliar to us in this country; but most of us have seen an amœba.

The size of the amœba, or of the most minute organism made visible by the microscope, is such as to indicate that it consists of an immense number of molecules; and the character of its matter shows that these molecules are highly compound, being individuals themselves, and containing hosts of *bioi* belonging to molecules of a lower rank, or to atoms. Yet the amœba is an individual, and has a life unit of its own. Wondrous indeed is the succession of life within life, in the ascending series which is here indicated; at the summit being the life unit of the amœba, the lowest known animalcule. Yet here, apparently, we may detect a missing term—an indication of that hiatus which has been supposed to mark the distinction between living and lifeless matter. We have seen some reason for holding that no matter is lifeless. There is an ascending progress from the *bios* of an atom to that of such a molecule as  $H_2O$ , and thence to that of the highly compound molecule, a little world in itself; and yet it must be admitted that the series scarcely seem to lead up without a break to life as found in the amœba.

Biologists, who acknowledge a physical basis of life, may find in protoplasm a link between lifeless and living matter. But protoplasm is altogether on the living side; for no one ever saw an example of general

protoplasm, but only the protoplasm of some special living thing.

The first appearance of life has been regarded as unquestionably involving a break in the continuity of Nature. Mr. Darwin writes: "It is mere rubbish thinking of the origin of life; one might as well think of the origin of matter." (*Life*, Vol. III, p. 18.) But the individuality and periodicity of the atoms, on which the *bios* theory rests, was not established when Mr. Darwin wrote, *i.e.*, in 1863.

The generation of a molecule from the combination of atoms, *mechanically considered*, is a break in continuity, and the *bios* theory has been interposed, not to explain the phenomenon, but because a process, somewhat analogous, is general in the animal and vegetable world.

On the basis of mechanics, the old break in continuity at the origin of life still remains, and will remain; and it seems to me that Evolutionists have to choose between discontinuity and the recognition of a universal principle of life, which may be regarded not as mechanical, but as inherent in the primordial atom, and inherited in the molecule, in the lowest organism, and in the man, so far as they are individuals.

Perhaps no better place than this may be found for a reference to certain cognate difficulties.

I. Wishing to profit by a great example, I may here refer to a weighty discrepancy between chemical combination and fertilization. The molecule, once formed, remains unaltered; the organism never ceases to undergo changes during the whole cycle of its existence. Perhaps, however, it may not be strictly accurate to say the molecule remains unaltered, for its environments are ever inconstant as the ages run; and very low organic life partakes almost of molecular uniformity. Mr. Ruskin points out that—"far above, among the mountains, the silver lichen-spots rest, star-like, on the stone; and the gathering orange-stain upon the edge of yonder western peak reflects the sunsets of a thousand years.—*Modern Painters*."

To have any meaning worth contending for, the term *bios* must imply a certain amount of spontaneity. If, therefore, an atom possess a *bios*, it is difficult to conceive of the entire constancy of its behavior.

Yes, if the *bios* of an atom must in all its properties resemble the *bios* in the higher forms of life. This great difficulty I must attempt to meet.

Life then, seems to me to be one of Nature's agents found in vast ascending series, the extreme terms of which are hidden. Take, for example, the most intense cold ever produced—that attending the vaporization of liquefied hydrogen. There is no such thing as cold; it is a purely negative term. That which is present as temperature in a particle of frozen mercury, is denoted by a very low term in an ascending series, of



which the heat of Sirius is a very high term. To take another instance. Darkness is not an entity, a darkness that may be felt is, really, a very low term in that series of gradations in which light reaches an effulgence which the eye cannot receive.

These series, and there are others, transcend our knowledge at both extremes; yet all the intermediate terms differ only in order and degree. The *bios* in the atom may no more resemble the central *bios* in man than darkness resembles light; yet the *bios* series may be one throughout. It may not be unreasonable to assume that in the gradation by which life advances, from its status in the amœba to its more highly developed form in man, we have just the middle terms only of a life series, corresponding in some measure with the series which we know in heat and light; and that, below the amœba and above the man, the life series extends, we know not how far, the highest and lowest terms having positions in the universe further asunder than the extreme terms in the series for light and heat. If it be thus—spontaneity in the *bios* of the atom may be only such as is adapted for its sphere, and need not affect the constancy of its behavior.

II. It has been claimed that the *bios* theory, if I may be permitted the use of such an expression, is the result of modern researches into the individuality of atoms and molecules. Yet there is probably no subject more perplexing in some of its aspects than individuality.

The Hydra may be divided into a hundred pieces, each of which will develop into a perfect Hydra. Is there a life unit in each of the pieces; but if not, when does it enter?

There are also compound animals, and colonial animals, such as sponges and corals; and compound plants, such as merisporae, in all or any of which it is hard to say what constitutes individuals; even the existence of individuality has been denied.

I would not make light of such difficulties, or exceptions, or denials, for they are certain, when properly treated, to prove instructive. But, after all, individuality stands out in the system of Nature with an overwhelming prominence. Unity, with individuality for its complementary feature, is the chief character of the universe. And the weakest point in the *bios* theory will not, I think, be found in the indefinable character of the individual.

It would weary you if I were to dwell upon the grades of life in the series ascending from the amœba, yet they are of much importance in support of the *bios* theory; and it is hardly possible to appreciate the relations of this theory towards the highest known term in the life series without, at least, a glance at the number and variety of the intermediate terms.

But at all events, we must now pass on to man.

If the inference drawn from the molecule of water,  $H_2O$ , be sound, every atom and molecule in our physical frame is an individual and has its *bios*.

But, beside these, the human body contains many whole systems, consisting of formed and formative matter, arranged in distinct histological constituents. Such are the cells of the various tissues and vessels, the lymphatic bodies, and the corpuscles of the blood.

Each of these may be compared with a complete organism having its molecular *bios* and dominant life unit.

The subject does not require me to enlarge on the countless assemblages of living communities gathered within the empire of the human body.

The point calling for attention is the immensity of the interval between our living constituents, and the human life-unit that is at the head of such an empire.

We seem to be repeating the story of our first pages respecting the atoms and the molecule of water. We saw that in no degree could our knowledge of the atoms enable us to predict the *bios* of the molecule,  $H_2O$ , or the consequences of its multiplication to compose the oceans, seas, rivers and clouds of our world.

The *bios* of the atom may be a term in the same vast series with soul or spirit, and though we must not go down to the primordial atoms and their ways to be *outside* wonderland, yet every other wonder sinks into insignificance before the human *bios*, soul, spirit, or life-unit, in its living kingdom, the physical frame of man.

If it be said—Heredity hath done this. Fully admitted. But if we had toiled upward from the amœba—not through Haeckel's twenty-two stages, but through twenty-two thousand stages—and if we could have seen first one and then another increment, in succession, raising the unit of life to its present human elevation, should we be less impressed with the mighty interval between the life-unit that governs, and the *bios* which subserve, in man?

For the *bios* remain as they were from the beginning, only they are true *bios*, not mere symbols but sources of the hardness, and the fusing point, and the specific gravity, and the elective affinity in the atom of an element; and their peculiarity is this, that ever as they combine, grade above grade, in molecule or organism, there comes in something, not supernatural but supra-mechanical and unforeseen.

It has been thus a thousand times repeated, till on the scene has appeared the life-unit capable of sustaining in Nature the part borne by nations and communities, but chiefly by individuals, constituting the glory of our race.

In conclusion, let me press the final enquiry I have to bring before you—Is it so very wild a speculation that a world which is made up of living constituents should, as an individual, have a *bios* of its own?



I once saw in Venezuela a tree, popularly called Humboldt's tree, which carries a botanic garden on its head, and can shelter an army beneath its branches. It is an individual, and has a *bios*, for it is the product of a single bud or seed by orderly development.

Our world, as a whole, is the result of development, and, as an individual, is a member of a planetary family in which every heavenly body feels where the rest are, and would be missed by them if its place were no longer filled.

Professor Huxley, in his *Critiques and Addresses*, thus writes, p. 309:—"It is a probable hypothesis that what the world is to organisms in general, each organism is to the molecules of which it is composed."

The cold of Neptune in those far-off regions at the limits of our planetary system cannot destroy or even starve the *bios* of its atoms. The heat of the sun leaves the *bios* of the hydrogen atom, and the iron atom, and the sodium atom unaffected in the fierce ragings of the photosphere.

Need we stay our enquiry at this point? The universe has systems as countless as the atoms in our globe, and there is sympathy between them, for they move together and life is everywhere.

May not the universe itself have a *bios*, a central life-unit, as far transcending the whole cosmos of gravitating bodies as the human life-unit exceeds, in noble capacities, the living cells, and vessels, and corpuscles of our physical frame?

We are, hereditarily, in matters relating to the inner life, so disinclined to receive grave instruction from Nature, that even if the *bios* theory and its inferences could be rendered far more clearly valid than they are shewn to be, nothing more seems possible at present than their extremely limited acceptance. Yet the train of thought to which we have been led, culminating in a single, central, supreme, sympathising and sustaining life—suggests, feebly indeed, but, it may be, not falsely, something of the anarchy of Polytheism, with its discordant government; of the vagueness of Pantheism, with diffused life everywhere, and true life not anywhere; of the presumption of Positivism, in assuming that the laws of Nature, as known in 1888, are sufficient for all that is needed, or indeed possible, to be known; of the needless reserve of Agnosticism, (for how much do Agnostics expect to know of the supreme life of the universe, before they are content to admit that they know anything at all?); of the delusiveness of rigid Determinism, seeing that some degree of spontaneity, sufficient for its sphere, lies within the atom at the very base of all.

I doubt not that many wise and noble minds have found refuge in all these, as also in other and greater "phases of faith," and have thought them to be final;

but faith cannot be stereotyped whilst knowledge is progressive.

Lastly, if my paper be said to be an attempt at a forensic treatment of a scientific subject, may it not be replied that in the true relation between the life-unit in man and the Supreme Life-unit are bound up verities which will not yield themselves to be expressed in scientific terms? Such constituents in man's idiosyncrasy are his affections, emotions, passions; his love, hope, veneration. For all these a higher sympathy is needed than can be found in the logic of science. Even if by scientific terms an infinite force, or power, or intelligence, could be represented, the thought conveyed would indeed be amazing and sublime, but man, after all, might be left with the feeling of being absolutely without a friend.

In reading the life of Darwin (Vol. III), I have been much interested with his strong regard for the theory of Pangenesis, his own child he calls it; and he seems to have fondly clung to it till persuaded by his friends Lyell, Hooker, Huxley, and Asa Gray, to give it up as a speculation likely to damage his chief work on the *Origin of Species*.

From its first appearance I was deeply impressed by Pangenesis, and, besides advocating a discussion upon it at the Glasgow Meeting of the British Association, I read a paper upon the subject to the Liverpool Naturalists' Field Club for 1868 (*vide Proceedings*). If Mr. Darwin had known what is now known of the individuality of the atoms; far more, if he could have seen in Nature sufficient reason for assigning to an atom a place in the lowest term of the life series, it is probable that nothing would have induced him to give up his cherished hypothesis of Pangenesis. The enquiry how the *bios* theory and Pangenesis afford mutual confirmation must be postponed for the present. Darwin writes to J. D. Hooker, 1868:—"You will think me very self-sufficient when I declare that I feel *sure* if Pangenesis is now still-born it will, thank God, at some future time reappear, begotten by some other father, and christened by some other name."—*Life of Darwin*, Vol. III, p. 78.

I have now only to add that in writing of the "*bios* theory," as if it held an acknowledged place, a sense of crudity has oppressed me, as, I fear, it may also have occurred to some of my friends. The avoidance of intolerable circumlocution may be my apology. The theory, taken by itself, seems to propose that we may derive some apprehension of the Supreme Life from the life of the atom, by a process of working from the circumference towards the centre. Admitted. But the theory is not to be taken by itself, and I venture to submit that it is not for us to begin with working from the centre; otherwise, our centre might be a mere irrational creation of superstition and im-



agination, as have been so many centres around which hosts of devout worshippers have been, and still are, assembled.

In early days, most of us were carefully taught the omnipresence of the Supreme; and I know not any thought more awe-constraining than the recognition of the presence of One, unseen, to whom the darkness and the light are both alike. Perhaps such a submission in religion to impressions of high reference towards an Unseen Eternal may be a very special need of our day. Yet I cannot agree with an aphorism delivered by Goethe, and twice quoted by the late Matthew Arnold in a recent number of the *Nineteenth Century*—

"The thrill of awe is the best thing humanity has."

Not so. The rarest, perhaps, but not the best. The spirit of alliance—call it love if you will—does most of the good work that is done upon earth.

The character of the material aspect of the cosmos appears to be individuality, segregation, separation. The character of the life aspect of the cosmos is combination, or the spirit of alliance, which, in man, is the inner angel that prompts him to do well for the sake of those he loves. But not even an atom lives for itself alone.

#### PLANTATION FOLK-LORE.\*

L. J. VANCE.

'Buh Alligator nebber does trubble Buh Mash-hen an eh chillen,' so says the negro Æsop, beginning a tale which we happened to read first in Mr. Jones's collection of "Negro Myths." And why? In reply, Old Daddy Jack goes on to tell a fable as ancient as Mrs. Malaprop's celebrated 'Allegory on the Nile'; an abridged account of which may be given in the exact language of the aged negro:

'One time Buh Alligator, him been er eat crab. Him bin had one teet wuh hab hole in um. Dat teet duh hot um berry bad. Wen eh der eat dem crab, one er de claw fastne in him rotten teet, an hot um so bad eh mek um holler. Buh Mash-hen pass by. Buh Alligator hail um an tell um wuh happne, an eh bague um fuh pull de ting out wid eh bill. Buh Mash-hen eh fade fur trus eh head between Buh Alligator jaw. But Buh Alligator schway to Buh Mash-hen dat ef eh would bleege um an pick de ting out eh would be fren teu um an eh fambly all dem life.

'Wen Buh Mash-hen see Buh Alligator dub bague so harde, eh tek pity on um, an eh pit eh head in eh mouf an eh pull out de crab-claw wid eh bill. Buh Alligator him keep eh wud. Ebber sence Buh Mash-hen kin walk bout de mash an de ribber, an buil nes, an ketch fiddler an schimp all round Buh Alligator an eh yent try fuh bodder um.'

Here, then, in Georgia, we have the details of a story which is familiar to every reader of Æsop. In the Greek fable it is the crane that pulls out a bone which had stuck in the wolf's throat. However, this is only one story out of a hundred which has been carried across the Atlantic ocean, and at last found a dwelling-place by the fireside in the negro's slowly cabin.

In number 23 of THE OPEN COURT for January, 1888, we had occasion to briefly refer to the existence of this class of stories (animal fables) among the Southern negroes. It does not seem to have occurred to any one 'befo' de wah' to write down the stories told by plantation dorkies. The earliest notice of negro fables, so far as I am aware, was by a writer in the *Riverside Magazine* for November, 1868, and March, 1869. We find, after that, a few stray stories appearing almost by suzerainty in papers (*New York Independent*, September 2, 1875,) and in periodicals (*Lippincott's Magazine*, Vol. 6, and also for December, 1877). Little was done to secure the scientific satisfaction of curiosity (as Mr. Lang would call it) about negro legends, till Joel Chandler Harris made his noteworthy collection of over thirty plantation stories under the name of "Uncle Remus," (1881). About this time Mr. Herbert H. Smith had collected in South America a number of Indian myths for publication in his book, "Brazil, the Amazons, and the Coast," the proof-sheets of which he kindly sent to the author of 'Nights with Uncle Remus.' Mr. Harris noted, with considerable surprise, that a number of stories in his collection were almost identical with stories collected by Mr. Smith, and also some stories collected by the late Prof. C. F. Hartt. ("Amazonian Tortoise Myths.") Very naturally Mr. Harris inquired (see preface to 'Uncle Remus'), 'When did the Negro come into contact with the tribes of South America?' In the *Popular Science Monthly*, April, 1881, that acute and accomplished student of folk-lore, Professor Crane of Cornell, set about to answer the question. He accounted for the remarkable similarity by holding that a large stock of myths and tales had been originally brought from Africa by the Negroes, and that the Indians visited by Prof. Hartt and Mr. Smith had heard these stories from African slaves in Brazil. He went further, and pointed out that, by far a greater portion of 'Uncle Remus's fables were more or less similar to the *Märchen*, or *contes*, or household tales of modern European peasantry. In some cases the negro story-teller had directly borrowed from Æsop and La Fontaine, "adapting" (like a French play) the story to local circumstances and to local scenery. Such is the place of negro tales in the world's folk-lore. The question, as to how these stories came to be so widely diffused all over the world, may be left unanswered for the moment.

\*Negro Myths from the Georgia coast, told in the Vernacular. By Charles C. Jones, Jr., Boston: 1888. Houghton, Mifflin & Co.



We have now to examine a collection of "Negro Myths from the Georgia Coast." In his book, Mr. Jones has brought together some fifty-seven negro myths and fables of very unequal value. Some of them do not properly belong in a collection of native negro lore, others are simply variations of familiar and time-worn themes; others, again, are really genuine contributions to the comparative study of American folk-lore. The stories to which Mr. Jones now acts as introducer were current on the Georgia coast. Yet, they do not differ much from the stories found by Mr. Harris in Middle Georgia. There is, however, a noticeable difference between the lingo of the negro on the coast and his sable brother in the interior. Mr. Jones has succeeded in noting down some of the queer turns of darky expression, and the reader would do well to go over the glossary, which has thoughtfully been added to the book. We doubt if any writer, save and except Mr. Harris of course, has been more successful than Mr. Jones in catching the sound and color of Negro-English, which is so racy and piquant as mouthed by a "New Nigger."\*

There is one striking peculiarity in these "Negro Myths." The *dramatis personæ* are animals. They are all dignified with the title of *Buh* (or *Brer*) which is generally supposed to be an abbreviation of the word 'Brother.' With the exception of the 'buckra' (white) man, who is introduced now and then in a perfunctory sort of a way, these myths have scarcely one human figure to show. Buh Elephant, Buh Lion, Buh Tiger, Buh Wolf, and Buh Rabbit, go and come, act and talk, in such a way as to out-Æsop Æsop.

Clearly, then, these negro fables take us back to a time when beasts spoke as never man spake before. "Le temps où les bêtes parlaient," says Gérard de Rialle, "est sans contredit la période fétichique." Mr. Tyler has adduced an immense mass of evidence to show that there is a stage of human intellectual development in which the savage draws no psychical distinction between man and beast.† (Primitive Culture, I, pp. 167-169.) Or, to quote De Rialle again: "Pour le fétichiste, l'animal se comporte comme l'homme; il est doué de la parole, il chasse, il pêche comme lui, il lui arrive les mêmes aventures. Tout, en un mot, est confondu."‡ People in this stage of primitive culture naturally tell tales in which beasts, and birds, and fishes do most wonderful things, and in which human forms are disguised like the ass in the Peau d'Ane. To the ear of the untutored negro the animals certainly seem to talk.

"I doom-er-ker-kum-mier-ker! I doom-er-ker-kum-mer-ker!"

"What is that?"

"Dat," says Uncle Remus to his astonished listener,

"Dat's Tarry pin talk. W'en you git ole ez me—w'en you see w'at I sees, en year w'at I years," continued the old man, "de creeturs dat you can't talk wid 'll be mighty skase,—dey will dat."

I think that the *conversations* between Brer Terray pin and Brer Frog in "Uncle Remus" would have delighted Sydney Smith who used to say that 'if lions would meet and growl out their observations to each other,' they might have better manners. Again, closely connected with the negro belief in feticism and anthropomorphism is the belief in "sperits," "cunjur" men, and supernatural beings in general. We may take the following dialogue from Mr. Jones's "Negro Myths." On one occasion, the author asked an old negro, called July, whether he believed in ghosts and could see spirits (loc. cit., p. 163). "Yes, Massa," was his reply, "me kin shum."

How do they look? "Same luk wen dem bin live, ceptin dem look lucker shadder, an dem walk backwuds, an dem face tun backwud, an de heel teh eh foot day way eh toe order be. Dem dont tetch de groun wid dem foot, but dem sorter dis skim pon topper de grass." Then July goes on to describe the kind of "cloze" worn by the "sperits." There is not a particle of doubt but that July knows a spirit when he sees one. "Me kin see dem dist es plain as me kin see you now." But it is not necessary to consider further the "sperits," which July, "like an exorcist, has conjured up."

With regard to the negro belief in magic and sorcery the case is not essentially different. "The potency of charms and philters was freely admitted." Again, we learn that the fabrication of Feticiches and their sale were monopolized by old negro women—conjurers as Mr. Jones calls them—"who derived considerable gain from this calling." Thus, "the ordinary Feticich consisted of a bunch of rusty nails, bits of red flannel, and pieces of brier-root, tied together with a cotton string." So too, "a toad's foot, a snake's tooth, a rabbit's tail, or a snail's shell," was sometimes used. According to Mr. Jones, the interference of the 'cunjur' man frequently gave rise to disturbances and promoted disquietude on the plantation. Many minor negro beliefs might be mentioned, such as the common faith in signs and omens, in lucky and unlucky days, in methods of work, and in colors of dress or costume. We find the belief that the plantation-witch has the power to vex horses and cattle (cf. "The Plantation Witch in Uncle Remus, p. 131").

"This is that very Mab  
That plats the manes of horses in the night,  
And bakes the elf-locks in foul sluttish hairs  
Which, once unangled, much misfortune bodes."

Enough has been said, I think, to show that the mental status of the negro is truly mirrored in his animal fables. We can readily see why the negro has such an immense advantage over us as a story-teller. He can

\* "A negro fresh from Africa." See Mr. Jones's glossary.

† See also Sir J. Lubbock's "Origin of Civilization," pp. 33-35, for additional evidence.

‡ La Mythologie Comparée, p. 101.



introduce beasts and birds, speaking in human fashion, with less compunction and less hesitation than our own Hawthorne felt in introducing the Marble Faun. Indeed, among fable-making negroes the powers of a witch are far more real than those possessed by "She," and to them the magic of the "cunjur" man is far more than that of the celebrated "Dr. Jekyll." Let anyone hear, (as we have heard,) the old myth-making darky tell of the wonderful things he has seen, of the "sperits" he has met, of the witches who fly in the air and who walk at midnight, of the conjurers who can control storm and sunshine, and who can work miracles—let him hear these things, then he will understand better than ever before, what stuff myths and fables are made of. He will readily believe that negro fables of Buh Terrappin, Buh Rabbit, Buh Fox, Buh Elephant, and all the rest of the Buhs, would naturally spring out of a condition of human belief and human intellect in which the metamorphoses of men into animals, and the agencies of magic and of spirits are regarded as possible incidents of daily human life. In other words, the raw materials of negro myths are to be found in that state of savagery where "shape-shifting," miraculous powers, Totemism, and Sabæism are accepted as an every day and working belief.

Now, be it observed the materials of comparative mythology or Folk-lore are not all of the same make or kind. Mr. Lang has divided the materials of mythology into two classes: "Nature Myths," and *Märchen*. The first class includes all those myths which explain the facts of the visible universe. The second class includes all those popular tales, or *Märchen* which, as far as can be discovered, have no obvious explanatory element.\*

In briefly examining "Nature Myths," we observe that they attempt to answer some question about Nature. "These myths range," says Mr. Lang, "from tales about heaven, day, night, the sun, and the stars, to tales accounting for the red breast of the ousel, the habits of the quail, the spots and stripes of wild beasts, the formation of rocks and stones, the foliage of trees, the shapes of plants. In a sense these myths are the science of savages; in a sense they are their sacred history; in a sense they are their fiction and romance."† What are the stars? According to the Greek myth the star called the *Bear* was once a woman, the daughter of Lycaon, King of Arcadia; while the seven stars of Pleiad were seven maidens, daughters of the giant Atlas. Our North American Indians, as Schoolcraft says, hold many of the stars "to be transformed adventurers." The Iowas "believed the stars to be sort of living creatures." Thus, where we see a 'Man in the Moon,' the *Èskimo* sees a girl, who is fleeing

from her cruel brother, the sun, because he disfigured her face. Why has the woodpecker red feathers on its head? Because the bird told Monabozho (the chief deity of the Algonkin tribes), when engaged in mortal combat with a great Manitou (or spirit), the spot where the latter, like Achilles, was vulnerable, and for reward had his head rubbed with the blood of the slain Manitou. Why is the Bear so fat? Because Monabozho killed a great fish, and with its oil made a small pond. He invited all the birds of the air, and the beasts of the field, decreeing that the fatness of each would depend upon the order in which they arrived at the feast. The bear "got there" first. Oddly enough the myth says that the hare arrived very late to the banquet, and that is the reason why he is so thin. Why is the bear stumpy-tailed? The Iroquois story is; that the fox induced the ancestral bear to put his tail in a hole in the ice, where it froze fast, and the bear had to pull his tail off to get away.\*

Such tales have survived in Negro folk-lore. To bring out this into clearer light, we may give the Negro version of the reason why Buh Rabbit has no tail, and also why Buh Elephant's ears always hang down. Mr. Jones gives the version of the first-named myth as follows:—Buh Bear had a fine well of water to which Buh Rabbit helped himself without asking. But Buh Bear took a big crawfish and dropped it into the well. So the next time Buh Rabbit came to get water the crawfish grabbed him by the tail, and in pulling away his tail came off. "An dat de way Buh Rabbit come fuh loss eh tail." (Cf. Negro Myths, p. 91.)

Did you ever notice that the elephant's ears always hang down? Do you know how that came about? If you do not, let me tell you:—One day when Buh Elephant was out hunting he stepped upon a nest containing Buh Rabbit's children. Buh Rabbit came home and found "eh chillem squash flat." He could not get any satisfaction out of Buh Elephant, so lays a plan "fuh git eeben" with him. One day while Buh Elephant was sleeping Buh Rabbit started a great fire about his ears. Now, 'befo de fire done out eh bun de hinge er all two eh yez (ears) so eh couldn't liff uny up no mo. An dat de reason huccum Buh Elephant hab flop yez tel ter-day' (p. 93).

"Dat de reason." In this way Negro philosophy seeks to satisfy the curiosity of the human mind. The following nature myths are simply guesses at knowledge by people in a state of ignorance. Why does Buh Alligator never sleep far from the river banks? Why does Buh Fowl-Hawk like chickens? Why is Buh Turkey Buzzard afraid of the crab? The answer is that, Buh Alligator never sleeps far from the river bank because one day Buh Rabbit treated him to a

\* Myths, Ritual and Religion, vol. II, p. 289.

† Loc. cit. I, p. 124.

\* See No. 23 of THE OPEN COURT for different versions.



big bonfire while he was sleeping in the marsh, and he barely had time to reach the bank in order to save his life. Buh Fowl-Hawk likes chickens, because Buh Rooster, in order to play a joke, told him that if he would watch the Sun, and catch him in bed, he would keep him in victuals. When Buh Hawk finds out the trick he made up his mind that hereafter he would find victuals by taking Buh Rooster's children. Buh Turkey Buzzard is afraid of the Crab, because one day Buh Buzzard was so greedy as to take dead fish from the Crab, but the latter got hold of the Buzzard's leg and almost drowned him before he let loose.

This class of Negro myths, like those of the Greeks and the Indians, give a "reason why" for the existence of some aspect in Nature. Such tales are the natural outcome of those "obstinate questionings,"—the outcome of a desire to *know*. "The Indians," said Schoolcraft, "conveyed instruction—moral, mechanical and religious—through traditionary fictions and tales" (*Algonic Researches* I, p. 12). There is but little doubt that Aesop's Fables were put together for this main purpose—namely, instruction. As Carlyle says, "Fable may be regarded as the first attempt of Instruction clothing itself in Fancy." Among the lower races of man these tales take a silly, senseless, or absurd form.

Yet, the question might be asked, why bother with these simple, childish fables? What difference is it to us whether Buh Rabbit and Buh Fox are always at sword's points? Why should we be asked to listen to the story of Buh Alligator and his friendship for Buh Mash-hen? What do we care about the likes or dislikes of Buh Fowl-Hawk, and Buh Turkey Buzzard? Surely, these outlandish stories have not the remotest literary value?

It seems to us that the whole answer to these questions has been stated as clearly as possible by Prof. Crane in the first number of the new *Journal of American Folk-Lore*:—

"The widespread interest in popular tales which has produced within the last twenty years an amazing number of collections from all parts of the world, is not wholly due to their intrinsic worth, great though in some cases it may be (notably in the collection of the Grimms, and of Asbjørnsen and Moe), but largely to the fact that they are supposed to possess a scientific value for the comparative mythologist, ethnologist, and student of comparative literature."\*

(To be concluded.)

#### THE MECHANICAL MEMORY OF THE PHONOGRAPH.

Mr. Thomas A. Edison announces in the June number of the *North American Review* that his predictions of ten years ago concerning the phonograph are now fulfilled. "The phonograph," he says, "knows more than we do ourselves. For it will re-

tain a perfect mechanical memory of many things, which we may forget, even though we have said them." The invention of the phonograph, it is to be hoped, will not only benefit mankind in many practical ways, it will also prove of theoretical importance as regards the explanation of the human soul. Mr. Edison's expression that the phonograph is "a perfect mechanical memory" reminds me of a passage in Mr. Hegeler's essay, "The Soul," p. 394 of the *OPEN COURT*. Mr. Hegeler says:

"I had read in an article in the Berlin *Gegenwart* on *The Origin of Reason*, by Noiré, 'Man thinks because he speaks; he has concepts, because he has words;' and how simply does the phonograph record words! That man's brain can record language in as simple a way as the phonograph is undoubtedly one foundation of the progress of man over the animal. I have overcome any hesitancy to pronounce this my opinion (which is likely shared by many others) so positively, by the course our increase of knowledge of the working of the eye has taken. That the eye works like a photographer's camera we learned already at school; that in addition a liquid analogous to the photographer's chemicals was active in the retina, fixing there for a short time pictures thrown on it by the lens of the eye, we learned not many years ago."

The form of the vibrations, the indentations in the tin-foil, Mr. Hegeler would call the soul of the phonograph.

There is no theoretical discovery which will not sooner or later become practically useful, and there is no practical discovery which will not be valuable to theoretical enquiry as serving to explain processes which hitherto we have been unable to understand. By the invention of photography we learned that the eye, the most wonderful organ of the human body, is not only like the *camera obscura* of a photographer, but that it *is* one, indeed. The apparently unexplainable had been explained. And now the invention of the phonograph shows that receiving and retaining sounds in some plastic substance can be effected very easily. There is only one difference between the photographer's plate and the retina, between Mr. Edison's wax cylinders and the auditory nerve: the plate and the wax are what we call dead matter, while our brain-substance is alive and endowed with sensation. The mechanical and chemical process of fixing pictures upon the plate and the retina, and the mechanical process of fixing sounds in the wax and in the gray matter of the auditory nerve and brain are analogous. They are possible through the very same mechanical laws which produce the nodal lines of Chladni.

The importance of Mr. Hegeler's application of the phonograph to explain the process of recording language in our brains is corroborated by a passage in Mr. I. G. Vogt's lately published book: "*Die Geistesthätigkeit des Menschen*." Vogt says:

"Upon the whole, the phonograph affords us an excellent point of vantage for the understanding of the intricate processes here treated of, although like all illustrations, it too is deficient. The

\* *Journal Am. F.-L.*, p. 9.



phonograph, an accidental invention of Edison, consists of a wooden\* cylinder into the surface of which is cut a spiral groove or hollow which continues around the cylinder without a break. Over this grooved surface is wrapped a thin sheet of tin-foil which gives to the whole the appearance of a tin-foil cylinder. In front of the cylinder is placed a so-called mouth-piece, which consists of a thin diaphragm stretched over a ring. In the centre of this diaphragm is fastened a small delicate pencil or metallic style, the point of which rests close upon the tin-foil directly over the groove. The mouth-piece is stationary, whereas the cylinder is fixed so as to revolve and at the same time to move along in the direction of its axis; thus, starting at one end of the spiral groove the style of the mouth-piece may be carried over the entire length of the groove until it reaches the other end of the revolving cylinder. If a person talk or sing into the mouth-piece while the cylinder is being turned about its axis, the sound-waves naturally set the diaphragm into vibration and these vibrations are transmitted through the style to the surface of the cylinder in the form of points or slight indentations of the tin-foil which at the spots touched lies over the hollow made by the groove. In this way, a conversation or a song may be stamped upon the surface of the tin-foil cylinder.

But it is just at this point that the remarkable peculiarity of the phonograph comes in. The conversation or song thus impressed upon the tin-foil may be reproduced at any time, simply by turning the cylinder in the opposite direction over the course traversed. During this process every indentation or mark made upon the tin-foil causes a rapid depression or elevation of the pencil fixed to the mouth-piece; in consequence whereof the diaphragm is set into vibration, and of necessity exactly the same vibrations are induced as caused the original indentations. Exactly the same sound-waves are again produced; and we have before us the phenomenal fact that an exceedingly simple apparatus of mere wood, tin-foil, etc., can talk, sing, and play with a purity of tone which easily enables us to distinguish between the most delicate shades of vocal and instrumental expression. In the reproduction there is a loss in intensity only.

Now we may now apply this phenomenon of the phonograph as a fitting illustration of the point in question. Let us compare the function of the sensory cells to the part acted by the mouth-piece in the phonograph. The vibrations of the diaphragm, the actual soul of the apparatus, clearly represent the trans-formative activity of the sensory cell. In the same manner as the diaphragm receives a spoken word or a song and transmits it to the tin-foil, in a like manner does the sensory cell receive the sensory irritations of the material world, transform them into sense-products or mental images and at the same time transmit these sensory irritation to the cortex or envelope of the brain to be stamped in the memory cells. Furthermore, just as the mouth-piece reproduces anew the sound-waves stamped upon the tin-foil, in the same manner does the sensory cell always reproduce the images corresponding to the sensorial irritations stored in the memory cells, so soon as the memory cells exercise their active function, that is, transmit their irritations to the sensory cell. And last not least, in the same manner that millions of words and melodies may pass through the single pencil of the vibratory diaphragm and millions of words may be reproduced anew through the same medium, in like manner may millions of images be reproduced and made perceptible through the one sensory cell, the point where consciousness is located."

Without going into the details of Mr. Vogt's explanation, we shall point out only one thing of which we can be certain, viz., that our most subtle sensa-

tions are mechanically explainable, and that there is no doubt but that physiology will solve one problem after the other until a comprehensive solution be attained. The images and words recorded in the memory of our brains are mechanically produced photographs and phonograms.

But we can go one step further on the way which has been pointed out by Mr. Hegeler. Our ideas, viz., our conceptions of abstracts or generalizations, are also produced mechanically. We find the fittest explanation of this process in the composite photograph. Mr. Hegeler says on this subject in a foot-note on page 393 of the OPEN COURT:

"I am told that what I call an abstraction is usually called a generalization, but abstraction is the more correct word. If a generalization is made, many things having something in common are put together and what they have in common is specified in words. It is then forgotten that what they do not have in common disappears in the generalization. The same takes place in Galton's composite photographs of the members of a family. Only that remains of the several faces what they have in common. This implies that the composite photograph is entirely contained in each of the single photographs of each member, each is the complete composite with additions. So in reality the composite photograph is an abstraction—a part—of each of the single photographs.

"If of a bronzestatue and a bronze cube and a bronze sphere I make the generalization *bronze*, I in reality make an abstraction—the bronze is in each of them—the form is not noticed. If of the words bronze, lead, iron, and copper I make the generalization *metal*, I again make an abstraction. What the word metal implies is in all of them; the other characteristics are omitted. If again of the words metal, wood, water and air I make the so-called generalization *matter*, I again in reality make an abstraction, what is meant by matter is completely found in each of them." •

The photographs of many horses are recorded on the retina of the eye and registered somewhere in the living memory cells of the brain. All together form a composite picture, which is our abstract conception of a horse. By this mechanical process, in the most simple way, all the complicated structures of human ideas are built up. How wonderful is the simplicity of the human mind notwithstanding all its apparent complexity.

P. G.

#### MY PHILOSOPHY.

LOUIS BELTROSE, JR.

I saw good men at strife because a creed

That half held sacred, half had learned to shun;

And while their bodies rotted in the sun

I thought;—I thought of all the strength we need

To war with nature;—how men's interests, freed

From misconception, still must ever run

Athwart; and ere my pondering was done

I heard from lips of wounds that seemed to plead,—

"Teach fact and judge not. Let the world have light.

Show all to all, that all men's eyes may see

The best and worst; that stamped on all men's sight,

\*The details of construction as now perfected by Mr. Edison and described in the *North American Review* for June, differ from those of the models exhibited in 1878. Instead of tin-foil a cylinder of wax is now used for receiving the record of sound pulsations.



Some sharp, some dull, the selfsame star may be  
The guide for all. Facts and not creeds unite."

Which forms the whole of my philosophy.

PARIS, during the Commune.

## CORRESPONDENCE.

### THE PHYSICAL BASIS OF MIND.

Number 40 of THE OPEN COURT contains, in answer to Prof. Cope's essay "What Mind is," the following editorial passage:

"But we are at a loss how to conform this monistic view with other propositions which must be considered as unequivocal dualism. Although consciousness, it is maintained, does not exist apart from energy and matter, Prof. Cope objects to the view 'that with the disappearance of protoplasm from the universe, mind would disappear; and that the development and extension of mind depend on the production and distribution of protoplasm.' Protoplasm, it must be mentioned, means the living substance which is the basis of organic life. On other planets may be found other kinds of protoplasm, but we do not expect to find mind independent of living substance. Moreover, when Prof. Cope speaks of 'a primitive or supreme person,' he can only mean a supernatural God, whom, as I judge from other publications of his, he considers as absolute mind. With such contradictory statements it is natural that Prof. Cope ends in occultism, etc."

In reference to this passage Prof. Cope writes the following letter to the Editor:

WASHINGTON, D. C., June 6, 1888.

DR. CARUS. *My Dear Sir:*—I have the proof of your criticism on my article, "What Mind is." I reply at once that you have misapprehended me on one point, that is as to the physical basis of mind outside of protoplasm. By denying that mind other than terrestrial human mind is not a property of protoplasm, I do not divorce it from a physical basis or introduce an inconsistent dualistic idea into the proposition. I hold on the contrary that according to the pointings of the "Doctrine of the Unspecialized" there is probably physical basis of mind not protoplasm, which may exist in other places in the Universe, and which may have generally similar capacities to protoplasm under different conditions of temperature, etc. It is not likely that this small planet on which we live is the only habitat of consciousness.

This explanation will, I hope, relieve me of the charge of inconsistency or of self-contradictoriness. Very truly yours,  
E. D. COPE.

### MATTER AND REALITY.

PHILADELPHIA, May 27, 1888.

To the Editor of THE OPEN COURT:

In replying to the letter of Mr. L. A. Fisher (the points of which letter I confess seem to me to be well taken) you say in one place: "We believe that spirit, life, feeling, are qualities of reality which are not included in matter and which cannot be explained from matter either"; and in another place you say: "From the standpoint of monism we maintain that the elementary conditions of life, especially those of feeling, must be inherent in matter." To my untutored\* mind these two statements of belief involve a contradiction. I beg leave also to heartily concur in the views expressed by Mr. Otto Weissstein in his letter in the same Number of THE OPEN COURT, and to say that if the Editor of THE OPEN COURT in his interpretation of "religion" includes the idea of worship I differ from him radically. Respectfully,

C. F. WOODWARD.

[The writer of this letter sees a contradiction where there is none. We present two similar statements:

\*We beg our correspondents to omit words like "untutored." Answers to questions, and replies to criticisms shall be given as much as our space allows if they are properly and intelligently presented.

"The notion of fire is not included in the concept wood, and cannot be explained from wood either," and at the same time we maintain that "the conditions of burning, viz., inflammability must be a quality inherent in wood."

Where is the contradiction? Can I explain fire (which is a process, or a mode of motion) from wood—or from wood and the oxygen of the surrounding air. Wood and air are matter, and their conceptions do not contain any notion of a process or of a mode of motion. Fire is as different from wood as life is from matter. But wood (if dry) is combustible, which means, it has qualities which will under proper conditions make it burn. Similarly we declare that matter has qualities which under proper conditions produce feeling, consciousness, spirit, psychical life, etc. The elementary conditions of feeling are inherent in matter.

Materialism identifies *matter* and *reality*, and concludes that all is matter and everything must be explainable from matter. However, matter is only one part of reality. The notion of matter is abstracted from reality in so far as surrounding objects materially affect our senses. We understand by matter what is material in things, and non-material qualities (e. g. form) are explicitly excluded from the term matter.

Prof. Max Müller says in his latest publication\* on p. 86:

"From this point of view I call materialism no more than a grammatical blunder," and on p. 87, "Matter and spirit are correlative, they are not interchangeable terms." "And the same blunder underlies Spiritualism."

For further information we refer to the passages quoted from Max Müller's lectures (OPEN COURT, p. p. 366 and 367), to our statement on Matter and Form (OPEN COURT, p. 933), and to the Editorial "Idealism, Realism and Monism."

What we think of worship has been stated on p. 890 of THE OPEN COURT.]

### NOTES.

In the issue of next week the OPEN COURT will discuss editorially the Field-Ingersoll Controversy.

"The Popular Science Monthly" for July contains the concluding essay of the remarkable series on "Darwinism and the Christian Faith."

In *Wide Awake* for June, Edward Everett Hall begins "The Story of Boston Common," and tells of the Massachusetts Witches of the Seventeenth Century, delightfully treating the historic incidents with which this old park is associated.

VOLAPÜK, 'the universal language' which is spoken nowhere, is beginning to be studied more and more in America. The publishing house of C. N. Caspar, 437 East Water Street, Milwaukee, is preparing an English Volapük Dictionary.

Herbert Spencer had to print most of his publications at his own expense; Schopenhauer's publisher disposed so slowly of his books that he thought of sending them as rubbish to the paper-mills, while Zola received \$20,000 on an average for each of his novels.

Upon June 28th, the Chicago Waifs' Mission will afford an opportunity to persons interested in the homeless children of Chicago, to contribute to the movement by taking part in the annual picnic which has been planned for that date. Many a bright boy or girl may be rescued from a wretched fate by the timely help of this mission. Tickets may be obtained for \$1.00 on application to Superintendent T. E. Daniels, Calvary Armory, Telephone No. 2337.

\*Three Introductory Lectures on the "Science of Thought," etc., published by THE OPEN COURT PUBLISHING COMPANY.



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XVII.—Continued.

This was too much; Laura turned her head sharply toward the Doctor. For a moment he saw two flashing eyes, and heard the contemptuous words: "I am no cat." Again her lips were compressed, and she clenched her hand convulsively.

Fritz reflected with astonishment whether gloves that wrinkle could ever have been considered a characteristic sign of our domestic animal. He thought the remark incongruous. "What a pity she is so whimsical!" After a time he began again: "I fear you will feel the draught; shall I close the window?"

"Not at all," answered Laura, with icy coldness.

"Do you know what the baby is to be called?" continued the doctor.

"He is to be called Fritz," returned Laura; and for the second time a flaming look of anger met his spectacles, then she turned away again.

Ah! in spite of the lightning that flashed from her eyes, the Doctor could not deny but that she was at this moment wonderfully lovely. She also felt obliged to say something now, and began, over her shoulder:—

"I think the name a very common one."

"It is my own name," said the Doctor; "and as I hear it every day, I must agree with you. It is at least a German name," he added, good humoredly. "It is a pity that they are so much neglected."

"As my name is a foreign one," replied Laura, again over her shoulder, "I have a right to prefer foreign names."

"If she continues like this the whole day," thought Fritz, discouraged, "I shall have a very pleasant time of it, indeed."

"I must sit next him at dinner, and bear the insult," thought she. "Ah! life is terrible."

"They arrived at the house, both glad to find themselves among others. When they entered the room, they hurried to different parts of it; but, of course, being obliged to greet the young mother, they again had to meet. When Laura turned to her godmother, the Doctor also approached from the other side, and the good lady called to mind the day when they had come together to her summer residence, and she could not refrain from exclaiming: "That portends something; you have again come together, dear children."

Laura raised her head proudly, and replied: "Only because you have wished it."

They went to church. The little Fritz tossed about in his godmother's arms, frightened at the baptismal font; but when he was handed over to the tall Fritz, he broke out into an angry cry; and Laura observed with contempt how disconcerted the Doctor was, and

what awkward efforts he made, by raising and lowering his arms, and by his looks, to appease the little squaller, till at last the nurse—a very resolute woman—came to his assistance.

With the approach of sunset the duties of the day became more insupportable. At the christening feast all Laura's most gloomy anticipations were fulfilled, for she was seated beside the Doctor; and, for both, it was a most disagreeable meal, indeed. The Doctor once more ventured to make some advances, hoping to break through her incomprehensible mood, but he might as well have attempted to thaw the ice of a glacier with a lucifer match, for Laura had now become an adept in the expression of social contempt. She conversed exclusively with the father of the child, who sat at her other side, and encouraged by his cheerful gossip she recovered her wonted elasticity of spirit; while Fritz became more silent, and noticeably neglected a pleasing young woman, his left-hand neighbor. But things grew still worse. When the proper time approached, the other godfather, a city councillor, a man of the world and a good speaker, came behind the Doctor's chair, and declared that he could not undertake to bring the christening toast as he was suffering with a headache, which drove away all his thoughts, and that the Doctor must speak in his stead. The possibility of this had never occurred to the Doctor, and it was so unpleasant to him in his present mood that he quietly, but firmly, refused his consent to the proposal. Laura again listened with deep contempt to the discussion between the two gentlemen about an oratorical exercise which was not even to be put in writing. The master of the house also observed it, and a feeling of awkward expectation threw a gloom over the society, which is not calculated to encourage unwilling after-dinner speakers, but rather to depress them, and scatter their thoughts. Just, however, as the Doctor was on the point of performing his duty, Laura, after giving him another cold look, rose and clinked her glass. She was greeted with a loud bravo; and she then said, to the astonishment of herself, and delight of all present: "As the gentlemen sponsors are so little inclined to do their duty, I beg pardon for undertaking what they ought to have done." Thereupon, she bravely proposed and led the toast; it was a bold undertaking, but it was successful, and she was overwhelmed with applause. On the other hand, sarcastic speeches were made against the Doctor by the gentlemen present. Nevertheless, he extricated himself tolerably, the situation being so desperate that it restored to him his powers; nay, he had the impudence to declare that he delayed intentionally, in order to procure for the society the pleasure which all must have experienced in listening to the eloquence of his neighbor. He then made an amusing speech on every pos-



sible subject; and all laughed, but they did not know what he was aiming at, till he adroitly turned it upon the godfathers and godmothers and in particular proposed the health of his charming neighbor who sat beside him. This answered well enough for the other guests, but to Laura it was insufferable mockery and hypocrisy; and when she had to clink glasses with him, she looked so indignantly at him, that he quickly drew back from her.

He now began to show his indifference after his fashion; he talked loudly to his neighbor, and drank many glasses of wine. Laura drew her chair away from him; fearing that he might drink too much, he became an object of annoyance to her, and she gradually relapsed into silence. But the Doctor took no heed of this; again he clinked his glass, and made another speech, which was so comical that it produced the happiest effect on the company. But Laura sat as stiff as a stone image, only casting an occasional stolen glance towards him. After that the Doctor left her side; his chair stood vacant, but, figuratively speaking, the cotton pocket-handkerchief and the small fur gloves still lay upon it, and it seemed quite uneasy under its invisible burden. The Doctor, meanwhile, went about the table, stopping here and there to pay his respects; and wherever he stopped there was laughing and clinking of glasses. When he had finished his round, he approached the host and hostess; and Laura heard them thank him for the merry evening, and praise the gaiety of his spirits.

He then returned to his place; and now he had the impudence to turn to Laura, and, with an expression in which she clearly perceived a sneer, he held out his hand to her under the table, saying, "Let us make peace, naughty godmother; give me your hand." Laura's whole heart revolted, and she exclaimed, "You shall have my hand immediately." She put her hand quickly into her pocket, put on one of the cat's-skin gloves, and scratched him with it on the back of his hand. "There, take what you deserve."

The Doctor felt a sharp pain; he raised his hand, and he perceived it was tattooed with red streaks. Laura threw the glove into his lap, and added: "If I were a man, I would make you feel in another way the insult you have offered me."

The Doctor looked about him; his left-hand neighbor had risen; and on the other side, the master of the house, bending over the table, formed a convenient wall between them and the outer world. He looked in astonishment at the challenge in his lap; it was all incomprehensible to him; he was conscious but of one thing, that Laura, in spite of her passion, was enchantingly beautiful.

He too put his hand into his pocket, and said: "Happily, I am in a position to bind your present of

this morning about the wounds." He pulled out the red and black handkerchief, and began to wind it round his wounded hand; in doing which, it could not fail being seen that the hand had a most uncanny and murderous appearance. When Laura saw the bloody scratches, she was shocked, but she bravely concealed her repentance, saying coldly, "At least it would be better for your hand if you would take my handkerchief as a bandage, instead of that stiff clumsy thing."

"It is your handkerchief," replied the Doctor, sorrowfully.

"This is worst of all," cried Laura, with quivering voice. "You have behaved towards me to-day in a manner that is highly humiliating to me, and I ask you what have I done to deserve such treatment?"

"What have I done to deserve such reproaches?" asked the Doctor, in return. "This morning you sent me this with your compliments.

"I?" cried Laura; "you sent me these cat's paws. But I did not send that handkerchief. My handkerchief had none of the beauty of this colored print—it was only white."

"I may say the same of my gloves; they were not blessed with claws—they were plain kid."

Laura turned to him, anxiously gazing into his face. "Is that true?"

"It is true," said the Doctor, with convincing sincerity; "I know nothing about these gloves."

"Then we are both victims of a deception," cried Laura, confounded. "Oh, forgive me, and forget what has passed." Guessing the state of the case, she continued: "I beg of you to say no more on the subject. Permit me to bind your hand with this handkerchief."

He held out his hand; she stanchd the blood with her handkerchief, and hastily wound it about the scratches.

"It is too small for a bandage," she said, sorrowfully; "we must put your own over it. This has been a disagreeable day, Doctor. Oh, forget it, and do not be angry with me."

The Doctor was by no means inclined to be angry, as might be perceived from the eager conversation into which they now fell. Their hearts were lightened; they vied with each other in their efforts at sincerity; and when the carriage set them down at their own doors, they bade each other a cordial good-night.

The following morning, Mr. Hummel entered Laura's private room, and laid a blue paper upon the table.

"There was a mistake yesterday," he said; "here is what belongs to you."

Laura opened the paper quickly; it contained an embroidered handkerchief.

"I have also sent back the gloves to the Doctor,



with my compliments, informing him that there was a misunderstanding, and that *J.*, your father, Hummel, sent him what was his own."

"Father," cried Laura, going up to him, "this new insult was unnecessary. Upon me you may inflict whatever your hatred to your neighbors prompts you to do, but that you should again wound another after what has passed yesterday, is cruel of you. This handkerchief belongs to the Doctor, and I shall give it him at the first opportunity."

"Exactly," said Hummel; "it is hemmed and embroidered by your own hands. You are responsible for whatever you do now. But you know, and he knows too, how I feel about these exchanges of civilities. If you choose to act contrary to my expressed wishes, you may. I will not consent to our house being upon terms of exchanging presents, either small or great, with the Hahns; and since you, as I hear, often meet the Doctor at our lodgers', it will be as well for you to bear this in mind."

He went out of the room complacently, and left his daughter in revolt against his harsh commands. She had not ventured to contradict him, for he was unusually calm to-day, different from his ordinary blustering manner, and she felt there was a meaning in his words that checked her utterance and sent the blood to her cheeks. It was a stormy morning for her journal.

Mr. Hummel was busy at his office with a consignment of soldiers' caps, when he was disturbed by a knock at the door, and, to his surprise, Fritz Hahn entered. Hummel remained seated with dignity, till his caller had made a respectful bow, then he slowly rose, and began, in a business tone:

"What can I do for you, Doctor? If you need a fine felt hat, as I presume you do, the salesroom is on the floor below."

"I know that," replied the Doctor, politely. "But I am come, in the first place, to thank you for the handkerchief you so kindly selected and sent me as a present yesterday."

"That's pretty good!" said Hummel. "Old Blücher was painted upon it; he is a countryman of mine, and I thought on that account the handkerchief would be acceptable to you."

"Quite right," answered Fritz. "I shall be careful to preserve it as a keepsake. I must, at the same time, add to my thanks the request that you will deliver these gloves to Miss Laura. If a mistake occurred yesterday in the delivery, as you kindly informed me, it was not my fault. As these gloves already belong to your daughter, I, of course, cannot take them back."

"That's better still!" said Hummel, "but you are in error. The gloves do not belong to my daughter; they were bought by you, and have never been seen

by her; and early this morning they were returned to their possessor."

"Pardon me," rejoined Fritz, "if I take your own words as testimony against you; the gloves were yesterday, according to the custom of the country, sent as a present to Miss Laura; you yourself received them from the hands of the messenger, and, by your words, acknowledged them. The gloves, therefore, by your own co-operation, have become the property of the young lady, and I have no claim to them."

"No advocate could put the case in a better light," replied Hummel easily. "There is only one objection to it. These gloves were non-apparent; they were covered with paper and flowers, like frogs in the grass. Had you come to me openly with your gloves, and requested to be allowed to give them to my daughter, I should have told you yesterday what I now say, that I consider you a worthy young man, and that I have no objection to your standing as godfather every day in the year, but I do very much object to your showing my daughter what hereabouts are called attentions. I am not kindly disposed towards your family and, what is more, I do not wish to be; therefore I cannot permit that you should be so towards mine. For what is right for one is fitting for the other."

"I am placed again in the unfortunate predicament of confuting you by your own actions," rejoined the Doctor. "You, yesterday, honored me with a mark of civility. As you have made me a present of a handkerchief, in token of your favor, to which, as I had not stood godfather with you, I had no claim, I also may say that what is right for one is fitting for the other. Therefore you cannot object to my sending these gloves to a member of your family."

Mr. Hummel laughed. "With all respect to you, Doctor, you have forgotten that father and daughter are not quite the same thing. I have no objection that you should occasionally make me a present if you cannot resist the inclination to do so; I shall then consider what I can send you in return; and if you think that these gloves will suit me, I will keep them as a token of reconciliation between us; and if ever we should stand together as godfathers, I shall put them on and exhibit them for your benefit."

"I have delivered them to you as the property of your daughter," replied Fritz, with composure; "how you may dispose of them I cannot decide. You know my wishes."

"Yes, perfectly, Doctor," assented Hummel; "the affair is now settled to the satisfaction of all concerned, and there is an end of it."

"Not quite yet," replied the Doctor. "What now comes is a demand I have upon you. Miss Laura, as godmother with me, prepared and sent me a handkerchief. That handkerchief has not come into my



hands, but I have undoubtedly the right to consider it as my property, and I beg of you most humbly to send it to me."

"Oho!" cried Hummel, the bear beginning to stir within him, "that looks like defiance, and must be met with different language. With my good will you shall not receive the handkerchief; it has been given back to my daughter, and if she presents it to you she will act as a disobedient child, contrary to the commands of her father."

"Then it is my intention to oblige you to recall this prohibition," replied the Doctor, energetically. "Yesterday I accidentally discovered that you exchanged the gloves I sent to Miss Laura for others which must have excited in her the belief that I was an impertinent jester. By such deceitful and injurious treatment of a stranger, even though he were an adversary, you have acted as does not become an honorable man."

Hummel's eyes widened, and he retreated a few steps.

"Zounds!" he growled, "is it possible? Are you your father's son. Are you Fritz Hahn, the young Humboldt? Why you can be as rude as a boor."

"Only where it is necessary," replied Fritz. "In my conduct towards you I have never been deficient in delicacy of feeling; but you have treated me with injustice, and owe me due satisfaction. As an honorable man you must give me this, and my satisfaction will be the handkerchief."

"Enough," interrupted Hummel, raising his hand, "it will all be of no avail. For, between ourselves, I have nothing of what you call delicacy of feeling. If you feel yourself offended by me, I should be very sorry, in so far as I see in you a young man of spirit, who also can be rude. But when, on the other hand, I consider that you are Fritz Hahn, I convince myself that it is quite right that you should feel aggrieved by me. With that you must rest content."

"What you say," replied Fritz, "is not only unconvincing, but unjust. I leave you, therefore, with the feeling that you owe me some reparation; and this feeling is, at all events, more agreeable to me than if I were in your position."

"I see we understand each other in everything," replied Hummel. "Like two business men, we both seek our own advantage. It is agreeable to you to feel that I have injured you, and to me that is a matter of indifference. So let it remain, Doctor; we are at heart, and before all the world, enemies; but for the rest, all respect to you."

The Doctor bowed and left the office.

(To be continued.)

The one thing in the world, of value,  
Is the active soul.—Emerson.

### Three Introductory Lectures

on

## The Science of Thought.

Delivered at the Royal Institution, London, during the month of March, 1887.

First published in THE OPEN COURT of June, July, and August, 1887.

BY F. MAX MÜLLER.

Chicago: 1888.

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#### THE QUESTION OF IMMORTALITY

It is treated in the Editorial of No. 25, "Evolution and Immortality." It is shown that immortality according to the Monistic view is imminent; it is a continuance of ourselves in our children, in our ideas and in the work we have done during life. Rudolf Weyler in his essay "THE PROCESS OF PROGRESS" in No. 24 speaks of death as a mere transition and C. Billups in a letter of No. 25 criticises the wrong notion of a transcendent immortality as taught by Dualism.

#### THE ETHICAL BASIS OF CHARITY.

W. ALEXANDER JOHNSON.

The Editor of *The Republic*, an organ of Organized Charity, Chicago, speaks not only from experience but takes the scientific aspect of this most vital problem. The basis of Charity must not be sought for in the sustenance of a pauper class who would not exist but for charity. The basis of Charity must be sought for in ourselves and our ethical nature. To this truth the principles and methods of doing the work of Charity must conform.

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"People do no longer believe in witches nor in ghosts. But the belief in disembodied thought will die very hard. \* \* \*

"As little as we possess a thing called hunger because we are hungry, do we possess a thing called reason because we are rational. Why, then, should we write it with a Capital R, and make a goddess of Reason and worship her, as she was actually worshipped in the streets of Paris? \* \* \*

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is shown to be a truth. It is a scientific truth (a reality) which has been and will remain the basis of ethics. The Quintessence of Religion contains all that is good and true, elevating and comforting in the old religions. Superstitious notions are recognized as mere accidental features of which Religion can be purified without harm to the properly religious spirit.

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## RECENT CONTRIBUTIONS TO "THE OPEN COURT."

### THE PSYCHIC LIFE OF MICRO-ORGANISMS.

ALFRED BINET. In Nos. 49, 50, 51, 52, 56, 57, and 58.

Mr. Alfred Binet, the collaborator of Ribot and Féré, and one of the most eminent representatives of the French School of Psychology, has presented in this series of articles the results of the most recent investigation into microscopic life. Every phenomenon that the improved methods of microscopic research have shown to be indicative of an exercise of intelligence, will, or feeling, in proto-organisms is fully discussed and analyzed. Mr. Binet has added much by these articles to the psychology of the microscopic world; he has opposed many theories, confirmed others, and advanced many conclusions of his own. The correspondence elicited in France by these essays is published in No. 67.

The essays will be published during the month of January, 1899, in book-form: parts that have not appeared in THE OPEN COURT, with new explanatory cuts, and a preface especially written by the author, will be added.

### TRANSFORMATION AND ADAPTATION IN SCIENTIFIC THOUGHT.

PROF. ERNST MACH. In Nos. 46 and 48.

Ernst Mach, Professor of Mechanics at the University of Prague, author of several works explanatory of the history and philosophy of mechanics, and the first authority in his branch, discusses in this essay an idea that conditions the development of modern scientific thought. The article was delivered as an address by Prof. Mach upon assuming the rectorate of the University of Prague.

### ORIGIN OF REASON.

LUDWIG NOIRÉ. In No. 33.

An essay of great importance; will greatly help to explain the views of Max Müller. The same number contains an editorial upon Monism and Philosophy, in which is discussed the Identity of Language and Thought, the theories of Noire and Müller, and the proof with which modern philology has corroborated the monistic conception.

### THE HIBBERT LECTURES AND THE GAULISH PANTHEON.

BY S. ARTHUR STRONG. In No. 63.

An instructive essay upon the purposes of the Hibbert Foundation, with a review of the recent lectures by Prof. John Rhys upon the religion of the ancient Celts. The original investigations of Prof. Rhys have thrown a new and welcome light upon the forms of belief in ancient Gaul, Wales, and Ireland, and they are regarded as a monumental work in the province of philological archaeology.

### CHRISTIANITY AND RELIGION.

BY DR. GUSTAV CARUS. In No. 70.

Dr. Gustav Carus, Superintendent General of the State Church of Eastern Prussia and one of the most prominent clergymen of Germany, criticizes the work of THE OPEN COURT. The principles of the monistic and melioristic philosophy are discussed in their relation to Science and Christianity. The criticism is pervaded by an earnest, thoughtful, and religious spirit.

In the same number, under the title "The Religious Character of Monism," appears an editorial

reply to the above criticism. The position of THE OPEN COURT is defended, its tenets justified, and its principles more fully explained.

### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.

FELIX L. OSWALD, M. D. In Nos. 27, 29, 31, 33, 34, 36, 38, 40, 42, 44, 46, 48, 51, 53 and 57.

The Science of the thousand-fold *moral effects of physical causes* is still a sealed book to a large plurality of our fellow-men. The ethics we have inherited is biased by the tenets of an anti-physical and anti-natural philosophy, and the tendency of the latter has even been to sanction and exaggerate the *physical effects of moral causes*. Dr. Oswald says: "Our entire system of moral education needs a thorough revision, and the success of urgent social and ethical reforms depends on the radical reconstruction of moral philosophy on a basis of natural science." The subject is treated in the graphic manner which has ever characterized Dr. Oswald's contributions to the Literature of Natural History and Anthropology. It is marked by the usual wealth of illustration and abounds in felicitous and pertinent citations of historical and natural evidence.

### THE UNIVERSAL FAITH.

BY T. B. WAKEMAN. In No. 71.

### THE FOUNDER OF THE NINETEENTH CENTURY CLUB.

BY MONTEGUE D. CONWAY. In No. 71.

Two important and interesting articles upon the life, work, and influence of the late Mr. Courtland Palmer, of New York, the liberal and high-minded founder of The Nineteenth Century Club.



# THE OPEN COURT.

## WHAT MIND IS.

PROF. E. D. COPE.....In No. 40.

## THE NATURE OF MIND.

By THE EDITOR OF THE OPEN COURT. No. 40.

Professor Cope gives in clear and comprehensive outlines his view of mind; he opposes Materialism and Dualism, stating that "the situation is monistic." However, "as the amount of thought can most assuredly be measured, but the quality of thought can not," the eminent American scientist concludes that "consciousness has a field of its own where it ranges free from the bonds of energy." The directive element (will and mind) is qualitative not quantitative and controls the movements of the non-mental environment. "This statement may be called occultism," Prof. Cope adds, "and I suppose justly. But such is the fact."

In opposition to Prof. Cope, the Editor explains his view of mind. The qualitative faculties are a matter of form. Form is the essential characteristic of mind, and a superior mind indicates a superior form of brain structure. Form is an abstraction from reality and has by itself no efficacy. M. Ribot, the founder of the French school of experimental psychology, is quoted in support of the fact that consciousness by itself is not an effective factor in the motion of our limbs. "The consciousness of mental states may be indispensable for a proper direction of our will, but it does not possess motive power. Prof. Cope's view is considered inconsistent because leading to dualistic statements and to occultism."

A letter from Prof. E. D. Cope, which has reference to this discussion, is published in No. 42.

## FREE-WILL A MECHANICAL POSSIBILITY.

XENOS CLARK.....In No. 39.

Mr. Xenos Clark here presents in an interesting and attractive manner certain scientific analogies bearing upon Free-Will and Determinism. A novel and ingenious application is here made of the theory of linkages and link-work which of late has so interested mathematicians and been developed with such striking success by Prof. Sylvester. The article will be found to be unusually suggestive, although it is not in concord with THE OPEN COURT, which, in an editorial of No. 33, admits the truth of both *Free-Will* and *Determinism*.

## THE FUNDAMENTAL PROPERTIES OF MATTER.

J. G. VOGT.....In Nos. 29, 31, and 34.

To the *kinetic* conception of the world's mechanism Vogt opposes his hypothesis of a *continuous* world-substance completely filling space and whose sole manifestation of power consists in *contraction* or *condensation*. He claims that the kinetic or mechanical theory, which explains organized and spiritual phenomena from inelastic atoms and a purposeless force, is untenable; and that pseudo-morphism, which transforms the most complex conditions and processes of physical life into the elementary substance itself, involves the fallacy of idealism and dualism. As opposed to both views Vogt propounds his conception, which he calls *Monism of Reality*. He attributes to matter two fundamental properties, motion and sensibility, and deduces from these elementary properties the higher phenomena of intellectual life.

## ETHICS AND PUBLIC LIFE.

W. M. SALTER.....In No. 43.

The well-known lecturer of the Society for Ethical Culture in Chicago bravely probes the wounds of our public life and shows his patriotism by boldly denouncing the evils and wrongs of American politics. But he is no pessimist; he does not despair of improvement and progress. He knows very well that men "of Roman virtue" still exist. Mr. Salter wants to elevate our conception of politics, so that the best men in the community would lose their repugnance to public life; that they would enter it once more to make it great and illustrious.

## THE PROBLEM OF CAUSALITY.

In No. 35 is an editorial discussion of The Problem of Causality. The surpassing importance of this subject renders a clear conception of it absolutely indispensable to correct observation and sound reasoning. Despite this the problem has been unbecomingly neglected, and this neglect has given rise to innumerable errors and to an astounding lack of lucidity in scientific discussion. The problem is treated with clearness and precision; simplicity of presentation being especially aimed at.

The comments and discussions elicited by the article on "Causality" will be found to be especially instructive and elucidative. In Nos. 38, 39, and 60, Mr. William M. Salter advances a series of critical remarks, which are replied to in the same numbers by the articles, "Causes and Natural Laws" (No. 50), "Is There Anything Unknowable in Causation" (No. 59), "Is Nature Alive," and "The Stone's Fall" (No. 60). In No. 58, Mr. M. A. Griffen writes a letter upon the same subject; in No. 60, Dr. Edward Brooks, of Philadelphia comments upon the standpoint taken: all of which are accompanied by editorial comments.

## REMINISCENCES OF MR. ALCOTT'S CONVERSATIONS.

MRS. EDNAH D. CHENEY.....In Nos. 49 and 50.

In Nos. 49 and 50 THE OPEN COURT publishes a paper upon Mr. Alcott's conversations, read by Mrs. Ednah D. Cheney, before the Memorial Meeting of the Concord School of Philosophy. Mrs. Cheney's recollections of Mr. Alcott lead us back as far as the year 1840. The reminiscences cover almost a half a century of Mr. Alcott's intellectual life. Abstracts are given of his conversations, incidents described in which noted contemporaries figured, and anecdotes told illustrative of Mr. Alcott's life and thought.

Wheelbarrow, in No. 52, contributes an additional reminiscence of this "amiable philosopher and venerable man."

## DETERMINISM VERSUS INDETERMINISM.

PROF. GEORG VON GIZYCKI.....In Nos. 25 and 26.

Georg von Gitzky is Professor of Philosophy at the University of Berlin. His name is well known beyond the boundary of his country. The problem of the Freedom of the Will has perhaps never been treated in a clearer and more forcible manner. Contributions on the same subject have been published from L. F. Powell and Xenos Clark.

## THE BASIS OF ETHICS.

### THE SOUL.

### FREE TRADE AND PROTECTION.

By EDWARD C. HEGGLER.....In Nos. 1, 15, and 62.

## THE FIELD-INGERSOLL CONTROVERSY

An editorial discussion of the Field-Ingersoll Controversy and of Mr. Gladstone's Remarks upon the same, will be found in Nos. 43 and 44. The questions and issues involved are treated from an independent and impartial standpoint. The inefficiency of Agnosticism to approach a solution of the religious problem is shown; Agnosticism being but a negative view of the world. The true position and significance of both parties in the development of the religious ideas are pointed out and each is recognized as important and necessary to the ultimate synthesis of religious truth, a religion which will in clude what is good in all.

## ECONOMIC CONFERENCES.

WHEELBARROW.....In Nos. 37, 40, and 47.

The Economic Conferences of Chicago may be hailed as a significant indication of a breach in the barrier between Labor and Capital. The conferences have served as a medium for the open exchange of opinion, where both sides are fairly represented. Wheelbarrow's criticisms are acute and pithy; and merit a careful perusal. The author unites Old Saxon simplicity, sincerity of heart, the truthfulness of honesty and warm sympathy for justice and right.

## THE ANIMAL SOUL AND THE HUMAN SOUL.

CARUS STERNE.....In Nos. 37, 41, and 43.

An essay full of fine thought and psychological depth. Carus Sterne well understands to follow a subject as historically developed in the realm of human opinion and as ultimately affected by the light of Modern Science. The question of the relation of the animal to the human soul has ever been of interest and in this essay we find it attractively yet accurately treated.

## THE SPIRITUALIST'S CONFESSION.

By MONCURE D. CONWAY.....In No. 63.

An interesting article upon the recent confession of the Fox Sisters at the Academy of Music, N. Y., with a short historical sketch of the Spiritualist movement in America and England.

## PLANTATION FOLK-LORE.

L. J. VANCE.....In Nos. 41, 45, and 46.

Mr. Vance reviews and discusses the movement and widespread interest in popular tales which has produced the recent collections of Negro Myths by Joel Chandler Harris ("Uncle Remus") and Mr. Charles C. Jones. These tales form an important addition to the Folk-Lore of the New World, and Mr. Vance's review will be welcomed by all who wish to acquire a comprehensive estimate of the significance of these Myths to comparative literature and the science of comparative ethnology.

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## THE ANIMAL SOUL AND THE HUMAN SOUL.

BY CARUS STERNE.

Part III.

Translated for THE OPEN COURT by *sq.*

A comparative analysis of the structure of the organ of thought teaches us with even more certainty than does the analysis of the internal processes, that, in the line of vertebrate development which culminates in man, the changes leading from the lowest cerebral forms to the highest structure of the human brain are very gradual,—so gradual, indeed, that no leap in development is perceptible. Even in the lowest vertebrate forms, the structure of the brain is essentially the same as in man; the anterior portion of the spinal cord is divided into five parts, lying one behind the other, termed, according to their locations, the fore-brain, the intermediate brain, the mid-brain, the cerebellum, and the medulla oblongata.

Of these divisions the posterior ones, which control the lower and indispensable functions of the animal body, are first developed, while the anterior portion, which we with good reason believe to be the organ of consciousness, remains, for the time being, so small that the other parts greatly exceed it in size; while in the higher classes of vertebrates it is much the largest of all the parts, and is called the cerebrum or brain proper.

There is a similar relation between those organs of the brain which control the senses. In the human being we regard smell and taste, when compared to sight and hearing, as inferior senses; but in the brain of the lowest vertebrates the olfactory lobes, which are in direct communication with the nostrils, are conspicuous by their size, whilst in the higher animals they are quite insignificant. In the lower animals this sense is apparently the most important; one might say, they scent their way through life. But we know that with the human being the most delicious odors suggest nothing more than the source from which they have originated; they excite the palate only and not the mechanism of the intellect.

In birds and reptiles, also, the relative development of the mid-brain and of the cerebellum is greatly advanced beyond that of the fore-brain, and it is only in mammals that the predominance of the fore-brain, the sphere of the intellect, over the organs of simple

sense, becomes noticeable. But even in this instance differences are perceptible among the various divisions. In the lowest mammals, *e. g.*, water-moles, opossums and edentates (sloths), a very essential part of the brain of higher animals is scarcely indicated, viz., the *corpus callosum*, a callous mass which unites the two hemispheres of the cerebrum.

In this connection, it is most instructive to compare the intelligence of these animals with the imperfect construction of their brains, and upon this point a report of Dr. F. L. Oswald who has given especial attention to the care of sloths, is of great interest. He says:

"Though fed daily by the same hands, the sloth still fails to identify his benefactor or to recognize his obligations in any way. To his ear the human voice in its most endearing tones is a grunt *et præterea nihil*: you might as well appeal to the affections of a cockroach. You may frighten a pig, a goose, a frog, and even a fly, but you cannot frighten or surprise a sloth. On my last trip to Vera Cruz I procured a pair of black tardos, full-grown and in a normal state of health, so far as I could judge, but after a series of careful experiments I have to conclude that their instinct of self-preservation cannot be acted upon through the medium of their optic or acoustic nerves. They can distinguish their favorite food at a distance of ten or twelve yards, and the female is not deaf, for she answers the call of her mate from an adjoining room; but the approach of a ferocious-looking dog leaves her as calm as the sudden descent of a meat-axe within an inch of her nose. The he-sloth witnessed the accidental conflagration of his couch with the coolness of a veteran fireman. War-whoops do not affect his composure. I tried him with French-horn-blasts and detonating powder, but he would not budge. One of my visitors exploded some pyrotechnic mixtures of wondrous colors and infernal odors, but the tardo declined to marvel; he is a *nil admirari* philosopher of an ultra-Horatian school."

Not alone in the vertebrates does the brain plainly show an ever-increasing development to higher forms, and an unmistakable increase in mass; we find also in the individuals of a single species a similar change, proving an increase of intelligence, with time, in the same

\* F. L. Oswald, *Zoological Sketches*, Lippincott & Co., 1883, p. 69.



genus. Thus most of the reptiles of the Secondary Age possessed a much smaller brain than do their direct descendants of like size at the present day. In the case of fossils and living animals of the same family a similar increase is proved by impressions taken of the brain-pan, which the brain completely fills; the increase in direct descendants is thus seen to be marked.

The investigations instituted within the last decade by O. C. Marsh, Filhol, and other palæontologists, concerning the skulls of tertiary mammals, have proved beyond a doubt that the organ of psychical activity, the size of which can be minutely determined from skulls now extant, has developed with startling rapidity and oftentimes increased in volume to a much greater degree than the body, with whose increase in size the brain generally keeps comparative pace. O. C. Marsh has been able to offer a striking instance of this in the equine species, which are well known on account of their appearance in great numbers during the entire tertiary age; the horse of the present age being connected by almost imperceptible degrees with its five-toed ancestor of the Eocene period, which was related to the tapir tribe, to-day so totally different. Now, while in the horse the brain has developed comparatively much faster than the body, yet in the tapir which is so little altered in its osseous structure that it bears a greater resemblance to the ancient equine than does any other equine of the present day, the brain has remained small, and is quite in accordance with the limited intelligence of these animals. An Indian tapir which has been closely observed in one of the zoological gardens, has indeed accustomed itself to the society of man in so far that it will follow him like a dog, will stop when he stops, is troubled if its companion should hide behind a tree-trunk, gives vent to its delight by sidling up to him when he reappears, but yet is unable to distinguish its friend from any stranger, and will go through the same performance with any one who will take the trouble to try it. Its intelligence seems to correspond with its pre-historic brain in dimensions; it has recognized that man in general is worthy of emulation and that he is inclined to be a friendly playmate, but it is incapable of distinguishing one of these two-legged beings from another.

While the tapir is a fair representative of the average intelligence of mammals of the Eocene period, the brains of its near relatives have in the intervening ages doubled, tripled, yes, even tenfold increased in size, and, what is perhaps most remarkable in the matter is, that their extraordinary development is not uniform in all parts of the brain but is confined principally to the two hemispheres of the cerebrum, which all modern psychologists believe to be the seat

of intelligence. The striking similarity of the structure of the brain in the higher mammals (and particularly in monkeys) to that of man, the homology of the different parts of the brain proven by experiment, indicate that man has inherited not only his other parts and organs from the animal, but also his organ of intelligence, and that therefore his intelligence does not differ from that of the animal in kind, but only in degree. Were there any further doubt about it, it would be dispelled by observing the development of the brain in the human infant, which begins with the same primitive forms as those of the lowest vertebrates, then increases, and shortly before birth bears a remarkably close resemblance to the brain of the anthropoid. Preyer has demonstrated, in his excellent work upon "The Soul of the Infant," how limited the intelligence of the human being is, even after birth; and how little it exceeds that of an intelligent animal when lacking a systematic education, is proven by savages in their lowest stages.

If we wish to be honest then, we must admit that man has brought with him from his former animal existence the foundation of his present mental superiority. The brain of man does not, in either form or size so greatly exceed that of his nearest relative in the animal world, as does the brain of the mammal of the present age exceed that of its early tertiary ancestors. The animal period has thus afforded the instrument for a development beyond the point attained by the animal, and it is probable that at the present time it works according to the same fundamental laws as it did formerly, and that however much the present progress may be in advance of the average former development, these advantages have been gained only by bringing into the light of consciousness internal processes which had before been at work in the dark, and thus making them accessible to observation and refinement. These processes and the art of language, which so greatly fashioned the realm of thought, necessitated, we may assume, the enlargement of the two frontal hemispheres of the human brain; but it was a question of the development of an already existing structure, planned with regard to the minutest details, and not of a new structure.

We cannot, therefore, recognize any essential difference between human and animal thought, even in the above mentioned probable difference; the line of division is very uncertain, and they who deny that the animal possesses consciousness err quite as much as they who attribute to it an intellectual capacity equal to their own. When we observe how animals, devoid of all consciousness, are able to assert themselves in the struggle of existence quite as well as those that act with the greatest deliberation, the question forces itself upon us whether consciousness in its first obscure



phases is not a mere attendant phenomenon of life, and whether it is not a self-deception to regard the *ego*, that latest product of development, as having a separate and independent existence, and to believe that it controls the organ upon which it after all proves itself to be dependent. It must engender a mistrust in us to find this proud subject constrained to admire its own doings, simply because it cannot trace their origin or even comprehend it. It is a melancholy truth that our best ideas are brought to light in very much the same way, as a fisher, throwing out his line at random, suddenly draws forth a speckled trout. This very fact alone, that our intellect is unable to comprehend its own action and processes, ought to warn us to seek its origin, not in higher and loftier spheres, but in low and limited circumstances.

All those who have ever closely observed themselves while thinking will acknowledge the justice of the proposition made by the witty Lichtenberg, when he suggests that, instead of saying "I think," we had better say "it thinks,"\* just as we say "it lightens" or "it storms." The new idea generally comes so suddenly that, with all our consciousness, we do not know where it has come from. The cause of this startling fact is that it was physically conceived in the physical organ, and first came to light (i. e. to consciousness) only after its completion. We know from experiences in dream-life that the organ continues its operations without conscious stimulus, and when not under vigilant control, it will even form the boldest combinations. There are then "unconscious ideas" just as there are "slumbering recollections;" consciousness of the operations of the brain is not an indispensable necessity, it is not their constant companion, and there are many persons whose actions are altogether the result not of clear and conscious deliberation but of vague impulses. They act in accordance with their entire character or, we might say, with their brain-constitution, without asking themselves why they act so, and without the thought ever occurring to them that they might act otherwise.

With regard to dreams we are more willing to admit the passive part we play in the operations of the brain. We also unwillingly acknowledge our impotency to clearly remember or define what is but a vague recollection; thus we say: "it seems to me," "it appears to me," or when a name has escaped our memory we say: "it is on the tip of my tongue." In short, the *ego* is not a sovereign ruler in its palace, it cannot think how and what it will, and even in poets and in professional thinkers it must "list to the higher inspiration" and await "the hour of ecstasy"; it is a rider borne by an obstinate steed, and obliged to let

the latter carry him whither it will, unable to command it.

A very good proof of the fact that we do not think but "are thought" is found in dreams from which we are awakened by a sudden noise. A generally very clever rider, whose steed, however, carries him unnecessarily far into labyrinthian mysteries has recently made use of these dreams to prove thereby the depth of the human soul-life. Because in certain conditions of excitability we think and dream faster than usual, because the noise which awakens us from slumber rapidly arouses in us a phantasy which the sound itself seems to complete, Du Prel concludes that there is also a transcendental, super-human kind of thought in man which is not dependent upon the material nerve apparatus, and therefore does not require the length of time that a nerve-act generally does. It is far more probable, however, that there is not so much time required for illogical dream combinations, for vague recollections, etc., as for logical thought and systematic efforts of memory, and that we deceive ourselves in imagining that we are suddenly awakened from a dream which we must complete before awakening. We probably never awaken from a deep dream to full consciousness suddenly; on the contrary, we calmly continue and complete our dream before fully awakening. Yes, we sometimes unconsciously finish the dream, and the apparent suddenness then lies only in the fact that we become suddenly conscious of the dream which has lain buried in the memory, just as we may suddenly recall our entire past life; for it is not a case of forming new ideas, but one of reviving existing recollections.

However, it is not our intention to assert here that the operations of the human intellect are an altogether comprehensible phenomenon; it is at present in the first stages of self-comprehension, and it will do well not to attempt to explain that which is itself difficult to understand, by something still more difficult. The worst chase of all is the chase of the will-o'-the-wisp.\*

#### THE ANÆSTHETIC REVELATION.

BY XENOS CLARK.

Dr. Felix Oswald's account, in No. 38, of the drugs which artificially stimulate various emotions, does not include sulphuric ether, probably from want of space. Within a few years it has been discovered that this anæsthetic often produces a most singular effect on the mind of the patient or experimenter who has taken it, giving rise to what has been called the "anæsthetic revelation." Just as the experimenter recovers from the anæsthetic, and before wide-awake consciousness fully returns, he has an intense perception of what seems to him at the time the philosophic secret of

\* Compare editorial "It Thinks" in No. 22 of THE OPEN COURT.



existence—the true explanation of the universe. This singular impression, though intense, does not last long, and in spite of the subject's strongest effort to carry the "revelation" out into wide-awake consciousness, he finds himself unable to do so, but is left full of awe by his strange experience, and wonder at the nearness of the solution which for so many ages has been sought so far afield. The present brief account has been gathered from the literature of the subject, which grows yearly. Mr. Benj. Paul Blood, of Amsterdam, N. Y., the discoverer of the phenomenon, originally made it known to psychologists in a pamphlet entitled *The Anæsthetic Revelation*, and he has since discussed its philosophical bearings in the *Journal of Speculative Philosophy*, January, 1886. The most scientific account appears in the *Therapeutic Gazette* for August, 1886, where Dr. Geo. E. Shoemaker of Philadelphia relates his "Recollections After Ether-Inhalation." MIND discusses it in Vol. IV, p. 345, and Vol. VII, p. 206. Dr. Oliver Wendell Holmes mentions the experiment in his "Mechanism of Mind and Morals" (p. 46); a letter from the poet Tennyson concerning his own experience has recently reached the press; and valuable newspaper accounts of the phenomenon may be found in the *New York Tribune*, September 3, 1886, the *New York Evening Post*, October 30, 1886, and the *Utica Herald*, September 15, 1886.

The abstract, philosophic nature of the ether dream gives it a special interest to students of philosophy and psychology. By its intensely specific character it differs entirely from the opium or hashish hallucination. The opium-eater may dream of a thousand different things; but the ether patient invariably has one fixed impression, a belief that the ultimate secret and explanation of existence stands revealed to him as finite knowledge never has and never could reveal it. The singular thing is that this impression may happen to a man who has never given one thought to philosophy, and whose mind therefore is devoid of material for this impression. This fact, and the specific likeness of effect of the ether on all who have made the experiment, has led some psychologists to declare the impossibility of considering the phenomenon a dream, and to claim place for it as genuine philosophic insight. Further and more accurate experimenting will throw clearer light on what is one of the most singular discoveries known to modern psychology.

#### PARABLES.

Translated from the Arabian by HENRY BYRON.  
II.

#### THE BREAD OFFERING.

In my childhood I was one day playing in the kitchen when mother entered.

The new cook, who was busy baking bread, was

just going to throw a large piece of dough, the burnt offering, into the fire,\* when mother said:

"Bake bread also of this part of the dough; we will give it to the poor. It is thus that the bread-offering has always been offered up in my house. Listen, my daughter, to what I tell thee: Give thy bread to the poor and thy heart to God!"

#### III.

#### THE CONSPIRACY.

My grandmother, who lived to be over ninety years of age, retained a degree of bodily and mental vigor which was truly marvelous at such an age. But as time, however gracious and lenient it might be, will—like a mighty sovereign upon his vassals—impose upon us some tribute, and were it only as a sign of our dependence and submission, the poor old lady, too, had to pay a tax to this all-powerful Sovereign. It consisted in the weakness growing on her in her high old age of allowing her usual love of cleanliness to become exaggerated and morbid. She began showing an aversion to any food, for the preparation of which the hands had to be directly used, unless she prepared it herself. Thus she objected to eating any bread not kneaded by her own hands, and resolved to make the bread for our household herself. In vain did mother try to dissuade her from it; in vain my eldest sister offered to do the work under her direction, at the same time, partly in joke, partly in earnest, holding up her extremely delicate white little hands for examination; the old lady persisted in her resolution.

Then we all entered into a great conspiracy against grandmother. She was allowed to knead the dough, which she invariably did in the evening shortly before going to bed; but as soon as she had retired we children gave a signal to mother or eldest sister, and the actual kneading then began—for, poor grandmother, how could, we have told her! Poor grandmother had not the strength to knead all the dough in the capacious trough for our numerous family.

That is the only conspiracy I ever took part in and I pray to God that if ever I participate in another it should not have a less good object, nor leave behind it less agreeable recollections.

#### AGNOSTICISM AND RELIGION.

##### A DISCUSSION OF THE FIELD-INGERSOLL CONTROVERSY.

In Dr. Johannes Ranke's most excellent work on anthropology† man and mankind are compared to a wave. A wave appears to the eye as a material unit. Its form travels along on the surface of the water, ever one and the same; but its substance is constantly changing. It is the mere expression of a number of rhythmical motions, and there are not two consecutive

\*A practice common with many Oriental nations. (The Translator.)

† Dr. Johannes Ranke; *Der Mensch*, p. 1.



moments in which the constituent particles are the same. The drops which one moment are seized by the approaching wave, rise in the next to its crest and then glide gently back on the other side of the billow to the quiet surface of the ocean.

The body of the wave is formed by the atoms of water which enter into and pass through the wave. Similarly the human body, like a wave of water, is a certain form of rhythmical motions. Material elements, the air we breathe, the food we take, are seized upon, only to pass through and leave the body, whose form continues and appears to the unknowing as the same material unit.

The same simile is true of mankind as a whole. The activity of the human race, as we observe it in history, rolls onward like a huge wave over the surface of the habitable globe. It incorporates and transforms the organic materials in its way only to give them back to the ocean of organic substance from which they were taken. In the onward course of human evolution, the generations of which it consists rise into existence and sink back as the wave of humanity rolls on. The generation of to-day is different from the generations of former centuries, but humanity is one continuous whole throughout all of them. It began with the origin of life on our planet and its onward movement will continue as long as the organic substance of the earth will afford sufficient material to renew its form.

The changeability of form constitutes what we call evolution. Evolution indeed means 'change of form according to certain laws.' Laws of form are geometrically demonstrable and laws of the changes of form can be ultimately accounted for with mathematical precision.

From this point of view the intellectual development of the human race, is the sum total of certain ideas which are transmitted from one generation to another. These ideas, the rhythmical undulations of a spiritual wave, travel along over the ocean of the human mind and seize upon the coming generations whose intellectual life they form. But as the form of a billow changes in its course, as it increases and reaches its climax in the foam and tumult of the breaking surge, so too have ideas their history; they develop and grow and pass away; they heave and swell in a ceaseless struggle until they sink back into the depths from which they have risen.

From this point of view, the swelling and sinking, the rising and falling, the current and the undertow, do not appear as two different things which perchance have met, and being of a different nature counteract one another; from this point of view they appear as a unity—as two stages of one and the same undulation or motion and as two complementary con-

stituents of one and the same wave. Single human individuals are not separate independent beings. Their likes and dislikes, their characters and personalities can be accounted for in and through the transmission of ideas. From this point of view adversaries appear as counterparts which do not exist but for one another and through one another. An idea may pass through the most different and antagonistic phases, even through its own negation, and yet remain one and the same idea. It is created by the same cause and will take its course through all differentiations in the regular evolution of all its forms.

Hegel formulated one law of the intellectual development of ideas as *thesis*, *antithesis*, and *synthesis*.

The solution of a problem is attempted by some philosophers in one way, while others try the very opposite method; then a third party comes and proposes to combine both. The Eleatic school conceived abstract existence as unchangeable, eternal, and immutable. They proved that even an arrow in its flight was at rest. Heraclitus on the contrary taught the eternal restlessness and mutability of existence in his famous axiom: *πάντα ῥεῖ*, "all is in motion." Plato succeeded in combining these contradictions in his Doctrine of Ideas, which in the perpetual flow of life represent the unchangeable forms of existence.

The truth that adversaries are but two aspects of one and the same movement has been realized by political leaders. A political movement wants opposition for the sake of its own existence. Those issues are dead which meet with heedless indifference and a great politician advised his partisans if they did not find opposition to create opposition.

A dim recognition of this truth has induced those who wage the battles of intellectual life to do honor to each other. They instinctively feel that they honor themselves in honoring their adversaries. And this is easily explained since their adversaries are real parts of themselves. The ideas in the brains of opponents have been produced by the same cause; they attempt to solve the same problem and they merely represent opposed aspects. The one must contend with the other, until both are merged into a new form. The directive principles of both, notwithstanding their irreconcilable enmity, are preserved; the contradictory elements disappear and from the fusion of two one-sided truths a new and greater truth is born.

From this objective standpoint of scientific observation the articles of the Rev. Henry M. Field and the Hon. W. E. Gladstone on the one side, and Col. R. G. Ingersoll on the other, do not appear as opinions of which the one must be true and the other must be false; they appear as the expressions of one and the same idea in two aspects. It is the *thesis* and the *antithesis*, the positive statement and its negation. The



one has been written to antagonize and contradict the other; but truly it would not exist without the other; it exists because of the other. And as the wave of the religious idea passes onward over the great ocean of human development, both will merge into one and give rise to a new form of the same old religious idea which will represent its *synthesis*, combining in a higher union the truth of both statements.

The contest is not a personal duel between Mr. Gladstone and Col. Ingersoll, it is an ideal conflict and behind the champions stand millions who are represented by the one or the other. We have learned from the published articles that the two parties are as different as can be; one party means to annihilate the other, and looks upon it as the exponent of unspeakable absurdity and arrogance.

It has always been the rule for the believer to call the unbeliever names, and the latter has never hesitated to repay him with ridicule. Col. Ingersoll has been regarded as a flippant blasphemer and a superficial scoffer while 'Ingersollians' freely speak of clergymen as hypocrites and impostors. The champions on both sides of this recent controversy happily refrain from direct personal insults. But we are told from the one side that Mr. Field is glad to know his adversary, "even though some of his brethren look upon him as a monster because of his unbelief." And from the other side we are informed that the believer is superstitious; he is addicted to convictions which are designated as the infamy of infamies and devoted to a most unnatural and cruel deity. A serious attempt is made by both parties to treat one another with due respect and consideration, but neither can the believer suppress his contempt for reckless unbelief—unbelief reckless in offending the feelings of others, nor can the unbeliever disguise his hatred of the existing creeds; certainly he does not hate the Presbyterians, but he hates Presbyterianism.

In spite of this hatred and contempt, in spite of all difference, both parties are much more like one another than they are themselves aware of. Both belong to one another, and as soon as the one shall pass away the other party must go also, not to disappear entirely but only to reappear, the one reconciled to the other, the one being transformed and purified through the other, in a nobler and grander *synthesis*.

The first step in solving the great religious problems must consist in an amicable exchange of opinion; and this amicable exchange must rest on the confidence that both parties are honest in their convictions and that both have something to say. Clergymen are but too prone to denounce the unbeliever from the pulpit; the infidel rejects belief, they say, because he wants to free himself from moral authority in order to live the licentious life of a libertine. And on the

other hand free-thinkers are too much inclined to picture the clergy as a hypocritical set of men who live upon the folly and ignorance of their fellow beings. Both parties are in this respect narrow and wrong, for the orthodox believers should know that the heretic as a rule has pure motives for his dissent, and the free-thinker could easily be informed that there are clergymen who devote all their time, and their labor, and their interest to the afflicted and sorrow-laden, who are true pastors of their congregation and faithful physicians of the soul, attending on those who are in need of their care.

The clergyman who unjustly suspects the infidel of bad motives does not promote true religion, he panders to prejudice and injures religion; and the free-thinker who reviles religious people as fools or hypocrites does not enhance truth and free thought, he prevents the progress of radical free-thought by setting an example of judging others from a prepossessioned opinion.

But an honest and amicable exchange of opinion, it must be well understood does not mean peace; it means fight, an honest fight for the sake of truth. And by our explanatory remarks on the principles at stake we do not wish to stop the fight but to call attention to its importance and prepare the minds of bystanders to judge impartially and to sympathize with the champions on both sides.

Ingersoll and his adversaries are wonderfully alike. They are alike in the style and pathos of their diction, in their method of reasoning and in the zeal for their cause. But substantially also they agree on the most essential points; they teach the same ethics, and they declare that they have no positive knowledge about God or a future life and cannot have any.

Mr. Field became personally acquainted with Col. Ingersoll and found out that two souls must reside within his breast. He says:

"I could not reconcile the two, till I reflected that in Robert Ingersoll (as in the most of us) there are two men, who were not only distinct, but contrary the one to the other—the one gentle and sweet-tempered; the other delighting in war as his native element. Between the two, I have a decided preference for the former. I have no dispute with the quiet and peaceable gentleman, whose kindly spirit makes sunshine in his home; but it is that other man over yonder, who comes forward into the arena like a gladiator, defiant and belligerent, that rouses my antagonism."

If Col. Ingersoll became acquainted in a similar way with an earnest Christian, he also would find two souls in his breast, and indeed Col. Ingersoll states that Christ himself is such a man. And, strange to say, the belligerent Ingersoll also gives preference to the gentle Jesus. "To that great and serene peasant of Palestine" he "gladly pays the tribute of his admiration and his tears." And at the same time, Col. Ingersoll severely censures the belligerent reformer who



has said: "I come not to bring peace but a sword."

This similarity of the predilection of the gentle soul in other people's bosoms prevents both Mr. Field and Col. Ingersoll from appreciating the militant and warlike character of their opponents. If Mr. Ingersoll were attached to any religious creed, he also (like the gentle Jesus) would have turned the money-changers and those who bought and sold, out of the temple, the house of prayer; and if Mr. Field were an unbeliever like Col. Ingersoll, would not he also denounce the belief of the orthodox as monstrously immoral and their deity as a personification of vices? We believe they would.

Neither the champions on the one side, nor those on the other trouble much about arguments. They are satisfied with assertions, and each one easily tears the counter-assertions of his enemy to pieces by giving some imperceptible turn to the words of his adversary and deriving therefrom the most absurd consequences. Col. Ingersoll for instance says, "that Christ offered a reward not only in this world but in another to any (!) husband who would desert his wife," and Mr. Field infers that according to Col. Ingersoll "he who sacrifices his life for a faith, or an idea is a fool," and that "family life" must wither under his "cold sneer."\* There are innumerable insinuations of a similar kind on both sides and indeed both parties make for this special purpose an enemy of straw and belabor him soundly. What Col. Ingersoll says against Christianity will please many prepossessed free-thinkers but it will induce no believing Christian to abandon his faith, for Christianity is not such as Col. Ingersoll depicts it in his articles. And Mr. Field may be comforted for the sake of civilization and society—"the destructive creed or no creed" does not take away "the support of morality." Mr. Ingersoll's unbelief is more moral than the belief of many a good Christian.

Mr. Gladstone is very indignant about the flippancy, the lack of calmness and sobriety which are essential in the discussion of important questions. But he forgets that Col. Ingersoll pays in the same coin as scientists have been accustomed to be paid by theologians. Col. Ingersoll is one of the first free-thinkers to use the most effective weapons of the clergy against their churches and creeds. Col. Ingersoll's diction is not that of a logician or a patient teacher, it is that of a preacher. The flow of his words and the brilliancy of his style are more impressive than his arguments. How beautiful are passages such as the following:

\* "Solemnity need not be carried to the verge of mental paralysis. In the search for truth—that everything in nature seems

to hide—man needs the assistance of all his faculties. All the senses should be awake. Humor should carry a torch, Wit should give its sudden light, Candor should hold the scales, Reason, the final arbiter, should put his royal stamp on every fact, and Memory, with a miser's care, should keep and guard the mental gold. \* \* \*

"I beg of you not to pollute the soul of childhood, not to frown the cheeks of mothers, by preaching a creed that should be shrieked in a mad-house. Do not make the cradle as terrible as the coffin. French, I pray you, the gospel of intellectual Hospitality—the liberty of thought and speech. Take from loving hearts the awful fear. Have mercy on your fellow men. Do not drive to madness the mothers whose tears are falling on the pallid faces of those who died in unbelief. Pity the erring, wayward, suffering, weeping world. Do not proclaim as 'tidings of great joy' that an Infinite Spider is weaving webs to catch the souls of men. \* \* \*

"The idea of immortality, that, like a sea, has ebbed and flowed in the human heart, with its countless waves of hope and fear beating against the shores and rocks of time and fate, was not born of any book, nor of any creed, nor of any religion. It was born of human affection, and it will continue to ebb and flow beneath the mists and clouds of doubts and darkness as long as love kisses the lips of death.

"I have said a thousand times, and I say again, that we do not know, we cannot say, whether death is a wall or a door—the beginning, or end, of a day,—the spreading of pinions to soar, or the folding forever of wings—the rise or the set of a sun, or an endless life, that brings rapture and love to every one."

Is the diction of these passages that of argument or the rapture of a seer who is full of his subject and carries his hearers along with the stream of music and poetry in his utterance?

When Gretchen asked Faust whether he believed in God, he answers her with these beautiful words:

Who can name him, and, knowing what he says,  
Say, "I believe him?" And who can feel,  
And, with self-violence, to conscious wrong  
Hardening his heart, say, "I believe Him not!"  
The All-embracing, All-sustaining One,  
Say, doth He not embrace, sustain, include  
Thee?—Me?—Himself?—Bends not the sky above?  
And earth on which we are, is it not firm?  
And over us with constant kindly smile,  
The sleepless stars keep everlasting watch!  
Am I not here gazing into thine eyes?  
And does not All, that is,  
Seen and Unseen, mysterious All—  
Around thee and within,  
Untiring agency,  
Press on thy heart and mind?  
Fill thy whole heart with it—and when thou art  
Lost in this blissful consciousness—  
Then call it what thou wilt,  
Happiness!—heart!—love!—God!  
I have no name for it—Feeling is all;  
Name, sound and smoke  
Dimming the glow of heaven!

Gretchen hears only the music of his words and answers:

This is all good and right;  
The priest says pretty much the same,  
But in words somewhat different.



The case is quite similar with Mr. Ingersoll. He sets forth the cause of unbelief after the methods of a zealous and enthusiastic preacher. Instead of advancing arguments he intoxicates with poetry, and theologians should be the last to blame him for that. The most prominent theologians have been flippant so far as scientific facts were concerned which they could not reconcile to their views. We do not say this to censure them, but to state a fact; and we do not speak of inconsiderable men, but of the most prominent in history, men who command the respect of both parties, the free-thinkers and the orthodox. One citation may serve for many. Luther said about Copernicus, the famous canon of Frauenburg:

"Mention was made of a contemporary *astrologus* who claimed to prove that the earth moved and turned about, but not the Heavens, nor the Firmament, nor Sun, nor Moon; just as when a person is seated in a wagon or on a boat and is in motion, and fancies he is sitting still and at rest while the earth and trees do seem to pass along and be in motion. But the whole matter is just this: whensoever a person means to be smart, he must perforce make up something of his own, which has to be the best that is, just as he makes it. This fool will upset the whole Science *Astronomicæ*. But the Holy Scriptures tell us, Joshua bade the *Sun* stand still and not the *Earth*."<sup>\*</sup>

We have never doubted Luther's greatness, but all the strength of his character which enabled him to become the great Reformer of the Church does not acquit him of having shared the one great theological fault of sometimes being flippant with great truths. Copernicus had devoted a whole life-time to the study of astronomy, but Luther "disposed in half an hour"† of any astronomical problem.

If Col. Ingersoll is too hasty in forming his opinion on certain subjects, if he forms his opinion in accordance with pet prejudices, he certainly shares this fault with his enemies, and has, perhaps, unconsciously adopted this method of keen sarcasm and active aggressiveness from his theological adversaries.

Preachers have the habit of appealing to their hearers' sympathies rather than to their reason. They picture pitiful sights and touch the hearts of their listeners. We read on p. 493:

"Only the other day I saw a beautiful girl—a Paralytic, and yet her brave and cheerful spirit shone over the wreck and ruin of her body like morning on the desert. What would I think of myself,—"

Dr. Field would continue:—

"What would I think of myself, should I take away the comfort of religion from her who, being incurably ill, has to resign all earthly hope?"

But Col. Ingersoll continues:—

"What would I think of myself, had I the power by a word to send the blood through all her withered limbs freighted again with life, should I refuse?"

The sad picture does not prove anything, neither in favor of Mr. Field, nor in favor of Col. Ingersoll.

We read in Mr. Field's letter on page 138 the following passage:

"Take another case—alas! too sadly frequent. A man of pleasure betrays a young, innocent, trusting woman by the promise of his love, and then casts her off, leaving her to sink down, down, through every degree of misery and shame, till she is lost in the depths which plummet never sounded, and disappears. Is he not to suffer for this poor creature's ruin? Can he rid himself from it by fleeing beyond 'the bourne from whence no traveler returns?' Not unless he can flee from himself: for in the lowest depths of the under-world—a world in which the sun never shines—that image will still pursue him. As he wanders in its gloomy shades, a pale form glides by him like an affrighted ghost. The face is the same, beautiful even in its sorrow, but with a look upon it as of one who has already suffered an eternity of woe. In an instant all the past comes back again. He sees the young unblest mother wandering in some lonely place, that only the heavens may witness her agony and her despair. There he sees her holding up in her arms the babe that had no right to be born, and calling upon God to judge her betrayer. How far in the future must he travel to forget that look? Is there any escape except by plunging into the gulf of annihilation?"

Such a story about the seduction of a beautiful girl—pale, "beautiful even in her sorrow"—never fails to carry away popular audiences. The argument in it is zero, but it excites our compassion, so it is serviceable for the purpose. Certainly it is serviceable for the contrary also, and Col. Ingersoll does not hesitate to use the same subject and addresses his opponent with these words:

"You have taught that this poor girl may be tormented forever by a God of infinite compassion. This is not all that you have taught. You have said to the seducer, to the betrayer, to the one who would not listen to her bewailing cry—who would not even stretch forth his hand to catch her fluttering garments—you have said to him: Believe in the Lord Jesus Christ, and you shall be happy forever; you shall live in the realm of infinite delight, from which you can, without a shadow falling upon your face, observe the poor girl, your victim, writhing in the agonies of hell."

One of the great Athenian orators noticing that the jurors did not pay any attention to his logical argument, suddenly changed the subject and told them a story about the shadow of a donkey. The sleepers awoke and listened. Pulpit orators know what effect stories have. And the moral drawn is easily made to fit the circumstances.

The zeal with which the preacher propounds his tenets easily leads him to bold affirmations that seem to afford a plausible basis for his views. This rashness makes him prone to take truths for granted which in other spheres will overturn his own arguments. An orator does not expect any one of his audience to rise and point out his inconsistencies and this security makes him careless. If the great preacher of free-thought, Col. Ingersoll, in his fervid enthusiasm commits similar mistakes, his opponents kindly offer to take the mote out of his eye and forget that they

\* Translated from Luther's *Tischreden*; Ed. Walch, p. 2560.

† Mr. Gladstone's remark, p. 499, upon Col. Ingersoll's methods.



carry beams in their own. We cannot here extract the beam from the eye of dualistic religion, but we feel compelled to show by a few instances what is meant by the mote in Col. Ingersoll's eyes, for motes are not so easily detected as beams.

Col. Ingersoll says: "We think in spite of ourselves" and "no one can justly be held responsible for his thoughts," (p. 476), for "belief is a result" and "the will cannot knowingly change evidence" (p. 633.) But is not action a result also? And could a man of a certain character with a certain amount of knowledge and in a certain condition act otherwise than he does. Certainly he cannot and yet he must be held as much responsible for his actions as Col. Ingersoll is for the articles he has written. A man can act otherwise than he does, if we influence his character or add to his knowledge or change the conditions in some way, but then again his action will be a result, and he will be responsible for it, if it was his free choice, which means if the result has emanated from his character.

A man is responsible for his thought, for the thought of a man is the character of the man; it is the man himself.

If a man *is* not responsible for his opinion, he is not at all responsible. "The scales turn in spite of him who watches." But the scales of our opinion contain our own likes and dislikes. Our opinion is formed under their influence and is the exponent of our character. Col. Ingersoll says in just contradiction to himself: "What would the opinion of a man without passions, affections or fancies be worth?"

For the purpose of undermining the moral value of honest error, Col. Ingersoll declares that: "Acts are good, or bad, according to their consequences, and not according to the intentions of the actor." It would by no means be strange if occasionally he should maintain the contrary. Not the man who unintentionally shoots his brother is a murderer, but he who nourishes the hateful crime in his bosom, who takes his aim but misses. The failure of a criminal plot does not make the evil-doer good, and cannot justify his act.

Whether the English judges in the Popish plot gave judgment in accordance with their opinions and whether Napoleon expressed his real opinion when he justified himself for the assassination of the Duc d'Enghien, are historical questions which if definitely decided may be used as instances of the moral responsibility or irresponsibility of our actions. Mr. Ingersoll declares: "If you (Mr. Gladstone) answer these questions in the affirmative, you admit that I am right. If you answer in the negative, you admit that you are wrong." Is not this dilemma much like the game: "heads I win, tails you lose!" And is not

this sweeping way of arguing much like the dialectics of ecclesiastical preachers from the early fathers down to modern days. Thus, we are told by Augustine that only the Christian has virtues, for the pagans are either downright vicious or, if they have virtues like the noble Greeks and Romans of antiquity, their virtues are tarnished vices. This way of reasoning which leaves only the dilemma "either I am right or you are wrong," has been acquired by pulpit orators who are sure that their auditors heartily concur in every word they say. And is it not natural that an anti-clerical orator should adopt the methods of his adversaries?

How often have free-thinkers been depicted in the pulpit as people who can never enjoy a happy and blissful moment in their lives. Only a true Christian heart, Luther thought, can be right merry and joyful, and only a faithful believer can die in peace. Now we are told that "the Church has always despised the man of humor." But how does this agree with the fact that the jolliest men we have ever met have been Roman Catholic clergymen? It is true that the gloomy Puritan type is prevalent among the clergy of this country, but it is well known that in continental Europe the happiest and merriest family life is that of an idyllic village parsonage. The same is true of the observance of Sunday. The orthodox Sabbath is gloomy only in England, in the English colonies and in America. The Christians of Continental Europe, Catholics and Protestants, and the early Christians too, have always looked upon the Jewish Sabbath as an institution which had been overruled by Christ's word: "That the Son of man is Lord also of the Sabbath."\* And even pious but liberal Jews of to-day look upon the strict observance of the Sabbath as a custom, the enforcement of which has been beneficial in a remoter time but is now no longer necessary.

Both Dr. Field and Col. Ingersoll do not look at religious problems from the impartial standpoint of the scientist. Their discussion is not the co-operation of two truthseekers who approach one common goal from different sides. It is rather a fight, and Col. Ingersoll confesses it in his letter to Mr. Field:

"You say that I ought to soften my colors, and that my words would be more weighty if not so strong. Do you desire that I should add weight to my words? Do you really wish me to succeed? If the commander of one army should send word to the general of the other that his men were firing too high, do you think the general would be mislead? Can you conceive of his changing his orders by reason of the message?"

Both parties fight and they both fight for the truth. For the sake of truth it is not advisable for either to "soften his colors." And the truth is that not

\* See Luke 6, 3-5. The context plainly proves that the expression "Son of man" is not limited to the person of Christ.



only in their methods of fighting but also in the substance of their beliefs they agree more than appears at first sight. They fully agree that of the subject about which they fight, no one either has or can have any definite knowledge. Agnosticism is the common ground upon which both parties stand. Col. Ingersoll confesses his ignorance on the subject and Mr. Gladstone praises his wisdom for doing so. The difference between the two parties is merely that the one believes because we have (as they think) no positive knowledge of the subject, and the other party for the very same reason rejects all belief. Col. Ingersoll confesses the possibility of God's existence. He says:

"I do not say that a God does not exist, neither do I say that a God does exist; but I say that I do not know—that there can be no evidence to my mind of the existence of such a being."

And in a similar manner he does not deny the belief in immortality:

"The belief in immortality is far older than Christianity."

"The hope of immortality is the great oak round which have climbed the poisonous vines of superstition. The vines have not supported the oak—the oak has supported the vines. As long as men live and love and die, this hope will blossom in the human heart."

If things were as Col. Ingersoll declares, if "the world is a mystery," and "every thing in nature is equally mysterious," if "nothing can be mysterious enough to become an explanation" (p. 486), if "the mind is so that man cannot grasp the idea of an infinite personality," and if science "has taught man that he cannot walk beyond the horizon"—most people will consider it advisable to believe in the God of tradition and in immortality with its dangerous correlative idea of eternal damnation, and they will bow down in decent modesty before a problem which we are too weak to solve. If the agnostic side were the ultimatum of science on religious questions, then certainly there would be no use in discussing the subject. But the fact is we *can* know something about religion and religious truths; we *can* find out what is true and what is false.

(To be concluded.)

#### IDOLS.

BY \* \* \* \*

The charming fairy-tales, which gently soothe  
Our childhood's easy griefs, must melt away;  
And sad Reality will soon dismay  
The bright phantasmal idols of our youth.

But from them our Ideals spring! Forsooth  
The childish frolic doth the man display.  
As fruit grows, whilst the blossom must decay,  
Thus from romantic errors springs the truth.

\* Mr. Field expresses himself similarly. He says: "Science can only go a certain way, beyond which we come into the sphere of the unknown, where all is dark as before."

But when the creed of Christianity  
Breaks down, it merely is the husk, which shows  
The evil fate of transient vanity.

Out of the bursting germ the fruit-tree grows,  
And Idols of religion will disclose  
The high Ideal of Humanity.

#### A FABLE.

BY THE DEACON.

A FISH who was of the unfortunate sort,  
And always complaining—a habit unwise,  
Once saw a companion dart after a prize,  
Sent down by some innocent lover of sport.

"He's got it! and so like my luck! I declare,  
He shot right a-past me! Such things are not  
fair!"

Sobbed the fish who had missed it—with other  
remarks

Quite common to fish-folk, from minnows to  
sharks;

But learning, in time, of that cruel hook, baited:  
"Ah, how providential," he cried, "that I  
waited!"

—From "*Jack-in-the-Pulpit*," in ST. NICHOLAS for  
June.

## CORRESPONDENCE.

### THE ORIGIN OF LIFE AND THE PROBLEM OF MEMORY.

TO THE OPEN COURT:

I have read the Rev. H. H. Higgins's essay on "The Individuality of Atoms and Molecules" with great interest, for I aspire to the same goal, which is a monistic explanation of life. The Rev. Mr. Higgins says: "Evolutionists have to choose between discontinuity and the recognition of a universal principle of life, which may be regarded not as mechanical, but as inherent in the primordial atom." It is the same idea which underlies the theory of J. F. Vogt, as propounded in *THE OPEN COURT* (Nos. 29, 31 and 34). He scorns the views which would resort to an origin of first life-cells, and declares that matter must have the two fundamental principles—"motion and sensibility." But while the Rev. Mr. Higgins attributes an individual *bias* (or life-unit) to every atom, J. F. Vogt believes in a continuous, contractile, elastic world-substance; and the atoms of modern chemistry (the existence of which Vogt accepts as a scientific fact) are according to this theory centers of concentration.

Mr. Higgins, as well as Vogt, opposes the view of kinetic materialism which teaches that the atoms are hard, inelastic, ultimate units, and that these atoms, themselves lifeless, produce all the wondrous phenomena of life by their mechanical interaction. I agree with both in so far as I also look upon kinetic materialism as an untenable explanation of the world, and in so far as I take for granted that life must be an inherent quality of the world-substance and its atoms. But I disagree with Vogt and with Mr. Higgins also, as regards their atomic theories. Both their views are speculations, mere conjectures as to what the atom may be; and neither of them can prove by experiment or argument that his view is correct. Both go into their subject dogmatically, and both are confident of having attained a



correct solution of the problem—a confidence which perhaps is justified and easily explained from their conviction of the truth of their monistic principle, for the demonstration of which they have taken the trouble of devising their theories.

With the monistic principle from which both start, I agree. I consider this principle as the basis of modern science, and would fain see it established as an axiom of philosophy. In propounding an atomic theory of my own, I am fully conscious of the fact that although certain arguments are in its favor, it is a speculation which, at present, our scientists can not prove or verify by experiment. If my view is wrong, it will perhaps be easy to refute it.

I imagine that matter in its fundamental properties is homogeneous. The world-substance very probably is continuous, as Vogt declares, and may be identical with what our physicists call ether. The tenuity of ether is such that we cannot with our most delicate instruments verify its presence, and can only infer its existence from such physical phenomena as light and electricity. Whether it consists of discrete units we cannot know; it is possible that it does. But if it indeed consist of minute units, single and uniform, (I should call them with Leibnitz *monads*), it is certain that the world-substance possesses at the same time a continuity which places all these monads in relation to one another.

By continuity of the world-substance I understand a quality which binds all the ultimate units together so that the innumerable monads are not single independent individuals, but integral parts of the whole world—parts which by their positions mutually influence one another according to laws which can be ascertained and mathematically accounted for.

Two or more ether-monads combine into what is known as atoms, two or several atoms into molecules. The ether-monads are uniform, the atoms of the same combination of monads are uniform, and also the molecules of the same combination of atoms are uniform.

The combination of ether-monads into elementary atoms is comparable to the process of crystallization of substances. Certain it is that it must take place according to a mathematical law. The atom must have a crystal-like shape; it must form a geometrical figure consisting of two or more monads.

This explanation of the problem seems to me the only possible solution which agrees with Mendeleeff's law of the periodicity of atomic weights. If the atoms possessed, as Mr. Higgins says, individuality and idiosyncrasy, it would be very strange if not miraculous that one atom of oxygen is exactly like unto every other atom of oxygen. What can be the cause of this, as far as we can judge, absolute identity of all atoms of the same element? Can it really be an individuality and idiosyncrasy from all eternity? If it were, I should be disposed to believe *a priori* (if I did not know anything to the contrary) that no two atoms would be exactly like each other, and that innumerable elements could be found in nature. Facts disprove this.

The absolute identity of two atoms of the same element can be reasonably explained only if we consider their identity as a sameness of form. Suppose, e. g., that two uniform monads of the homogeneous ether, by a certain pressure, at a certain degree of heat, and under other certain yet unknown conditions, crystallized, as it were, into a certain geometrical figure which chemists now call an atom of Hydrogen. Under other conditions thirty-two monads will combine into another geometrical figure, which would be an atom of Oxygen. The substance in the two monads of the Hydrogen atom and the thirty-two ether-monads of the Oxygen atom is supposed to be the same ether; but the combinations are different. If we knew what the geometrical shapes of the atoms were, we would be able to state why in the one case two and in the other thirty-two monads are required to make up one atom.

If the difference of the various elements is a difference of form

only, we can account for their uniformity in all regions of the universe as easily as we account for the spheroid shapes of the heavenly bodies and for their paths in conic sections. Moreover, if such is the case, we understand why the number of the elements is so limited, and why the atomic weights of the elements are so regular and invariable. Perhaps if we had a sufficiently powerful lens we could arithmetically compute and geometrically demonstrate why the atomic weight of iron, for example, is exactly 56, why at the same time an element of one or a few unit-weights more or less cannot exist, and why the periodicity of the atomic weights cannot be otherwise. Perhaps such a *demonstratio ad oculos* of the fundamental chemical law would be as simple as to show that the tetrahedron has four, the octahedron eight, the tetrabexahedron twenty-four equal faces of equilateral triangles, that the cube's faces are squares and those of the dodecahedron, pentagons. We, then, shall see why elements of the atomic weights, 7, 23, 39, etc., exist, and why atoms of intermediate weights are as impossible as, e. g., a heptahedron with congruent faces is a geometrical impossibility.

If the combinations of the monads into atoms are limited to the comparatively small number of about seventy elements, it is natural that the possibilities for molecular combinations increase immeasurably; and the possible combinations of molecules into specific substances must be infinite.

Mr. Higgins's expression "idiosyncrasy" cannot well be applied to the individuality of the ultimate units of matter, as the word denotes "a peculiar mixture of something." If anything is not mixed, it is the elements; and the ultimate units of matter cannot be said to possess an idiosyncrasy. But this is perhaps a mere verbal difference.

The main point, however, is this: the world-substance possesses life as an intrinsic property. The world-substance is not acted upon by pressure, but it acts spontaneously and of itself. This, I should say, is the fundamental thought of Vogt's essay, this is also the main idea of Mr. Higgins's explanation. Our scientists have attempted in vain to explain the origin of life from dead matter. The truth is that life never originated. Life is as eternal as the world and to search for a beginning of life is as wrong as to search for the origin of matter.

It is of little consequence whether we define life in this broader sense of the word as spontaneity or as intrinsic energy or as self-motion (cf. THE OPEN COURT p 971) but we must well distinguish this kind of life (which is the inherent quality of matter) from the psychic life of organisms. The former is elementary and eternal, the latter is unstable because provided by a combination of the former. The life of monads must be considered as uniform and most simple, that of organisms as manifold and highly complex. But if there is an essential difference between both is is not that of spontaneity, or self-motion, which is generally considered as the characteristic of life; the essential difference is the absence of psychic life in the one and its presence in the other.

The basis of psychic life is memory. In the monads, the atoms, and the molecules of organic matter we have not as yet been able to discover memory, but protoplasm, the moners, and the cells of organized matter have memory. Accordingly, the problem of the origin of life is not how to account for spontaneous motion of living bodies, but how to account for the memory of organized matter. All matter possesses spontaneity of motion; but the faculty of remembering is limited to protoplasm.

It is a very strange fact that protoplasm, being a very complex compound exhibits in its first stage a singular sameness wherever it is found. This indicates that here also the solution of the problem must be looked for in the structure of the protoplasm. The shaping of forms follows mathematical modes; and unalterable regularity is always dependent upon the laws of form. Mathematics, I am fully convinced, will explain the nature of the



elements; but mathematics must do more for science, it must also explain the problem of the origin of memory. The question, how matter can remember will become the fundamental and ultimate question of psycho-physiology. c.

## BOOK REVIEWS.

IN NESTING TIME. *Olive Thane Miller*. Boston: 1888. Houghton, Mifflin & Co.

The general character of this author's writings is well understood, and "In Nesting Time" does its part to help establish her well-earned fame. Mrs. Miller is an intelligent and loving observer of nature, has familiar acquaintance with all the feathered songsters of the fields and knows their habits better than it is possible for the human animal ever to know the peculiar traits of its kind. Most of the essays in the present volume have been printed before in the *Atlantic Monthly* and other periodicals, but they deserve their present permanent setting. The publisher's work is done with the usual care and neatness. A pretty design ornaments the cover, and an appropriate selection from some poet introduces each of the fifteen chapters. C. P. W.

THE GAMBLER. *Franc B. Wilkie*. Chicago: 1888. T. S. Dennison, Publisher.

The above is further characterized as "A Story of Chicago Life," and describes the downward career of a young man, born and bred in the country, who, accidentally becoming heir to a large fortune, takes up his home in the city where he falls into evil ways, squanders his fortune, goes headlong to ruin and shame and dies an outcast in the hospital. The story is told with a painful and at times unpleasant realism, and while written for a manifestly good purpose, and to point a moral, its workmanship is so careless, which a style often degenerating into slang makes worse, that the force and dignity of the work is greatly weakened for the more intelligent reader. "The Gambler" belongs to the sensational order of novels so far as its subject-matter is concerned, but a different style of treatment, such as one of the author's reputation must be equal to, would have set it far above that class. Mr. Wilkie doubtless thought to add pungency and truth to his narrative by preserving in his own style much of the vernacular and rhetorical dash of the characters with whom he deals; but this robs the book of all charm of ideality, which may be preserved even in the description of scenes and incidents of the kind with which "The Gambler" deals. But the book has this merit that it nowhere glosses over the social sins which it depicts, nor, according to Tennyson's lately-written line condemning the practices of some of the realists, "paints the mortal shame of nature with the living hues of art." C. P. W.

A PURE-SOULED LIAR. Chicago: 1888. *Chas. H. Kerr*.

A Pure-Souled Liar is, for originality of plot, finished and entertaining style, and high purpose, one of the most notable books of fiction recently issued from the press. Added to this is the wonderful air of reality that pervades the book, especially in the opening chapter. This is due, we think, in part to very cunning art, and also to the circumstance of the author's complete incognito. The story reads in the beginning like a chapter from real life, and though the reader's interest is not held in such startled attention in the succeeding portion of the work yet it seldom flags. Directness of style and sincerity of purpose characterize every page. The *personnel* of the story are chosen from that enticing, perplexing class, marked by aspiring souls and Bohemian instincts—the students of a modern Art Institute; thus supplying an agreeable variety to the motive and characters of the average society novel, of which we are getting rather too many. We could wish, however, that the unknown author had spared us the bit of

moralizing at the end where she draws the unnecessary and unjust deduction which traces the dark and melancholy experience of the principal characters to the influence of the Art Institute. Institutions of that kind doubtless have a certain order of temptations for those who profit by their advantages, but they should not be held too rigidly to account for results in youthful error and misconduct likely to follow youthful folly and inexperience everywhere. We do not like the title of this book, which has an affected sound; neither do we like the circumstance which led to its selection. Much as we admire "A Pure-Souled Liar" for its literary grace and excellence and for the manifest nobility of the author's intention, we find neither reason nor justice in the main *motif*. The lesson which it inculcates is one of a morbid and wasteful notion of self-sacrifice, supported by a rash and weak sense of duty.

C. P. W.

EUGENE BODICHON: ŒUVRES DIVERSES. *Ernest Leroux, Editeur*. Paris: 1886.

About thirty years ago a bridal couple came to America on a visit who attracted much attention in social and artistic circles. Mad. Bodichon was the daughter of a well known liberal member of Parliament, who was herself an accomplished artist in water colors. Her beauty, talent and charming manners at once secured her a welcome in society, and she is still remembered with warm affection. Dr. Bodichon was less generally known, and few of us perhaps were aware of his large claims to our respect and admiration. We are therefore pleased to call attention to this book, which reveals to us something of his beneficent life and high character and aims.

He was born at Mann's (Loire Inférieure) in the year 1810, and died in Algeria in 1885.

A great part of his life was passed in Algeria, where he became a great public benefactor. He practiced his profession there gratuitously, teaching the principles of hygiene and sanitary science both by his practice and his writings. He took an active part in the development of the colony, where he was honored by the name of "l'honnête Bodichon." He was one of the first to point out the importance of the Eucalyptus tree in preventing fever, and devoted much time to its introduction into the colony, and it was due to him that Algeria was included in the decree abolishing slavery.

When the *coup d'état* occurred his name was foremost on the list of those proscribed by the new tyranny, but the general tore up the list with an oath, crying: "Must I exile from Algeria all the most honest men."

The latter part of his life was divided between his home in Algeria and his wife's residence in Sussex. A French writer says:

"When Algeria shall write its golden book the name of Dr. Bodichon will shine on the first page, and his book will remain an indispensable document for him who shall undertake to write the history of the political and social theories of France in the 19th century."

To those who did not know Dr. Bodichon personally this book is still of great interest and value as revealing the deepest thought of a liberal Frenchman of the most advanced school, who writes from no motive but the desire of honestly expressing his thoughts. He is also a man of wide experience and active life, whose observations must be accepted as of value, whether we can accept his conclusions or not.

He himself says:

"He who has formed a conscientious opinion owes an account of it to the public. To be silent is cowardice. Little matter if the author makes a sacrifice of time, labor and money. Let him be approved or blamed, read or disdained, before all he must say what he thinks."

His religious axioms are full of interest; for while he demands



and uses the broadest liberty, he is full of respect for the highest and best in religions. He says noble things of Christianity. "Christianity has raised humanity," but he does not fear to condemn the superstitions that have gathered about it. "Devotees are one of the bad elements of humanity. It is they who are always the impudent fabricators of miracles, frauds, slanders, of pious calumnies."

He distinguishes between religion and the various religions. He says: "The religions have become in the hands of the priests the romance of our relations between God and the unknown world."

"The best prayer, the prayer useful by itself, is labor, is study."

He predicts for Anglo-America that it will become the New Jerusalem \* \* of the seekers if it allows itself to be governed by the puritans and quakers. "Let it read the Bible," he says. "All biblicists are friends of liberty."

These extracts show as many others would, how broadly and tolerantly he looks on all sides while the emphasis he lays on reading the Bible and other points betray his Catholic surroundings whose evil he clearly sees. We must pass over many interesting topics to note the largeness of thought and freedom from prejudice of country, shown in Dr. Bodichon's estimate of the future of Great Britain. He claims that she will be a refuge "for the proscribed of the universe and one of the first people of the world." "For many centuries yet she will march at the head of European civilization." His judgment of his own country is less hopeful, he prophesies that England will rule over her, because she is "the region of positivism, of application, of religious sentiment." But he says "North America is really the queen of the Universe—all the progress of perfected humanity will be made practical there. More than a thousand millions of men will live there, all equal, free, rational, religious workers, serving for an example to the rest of men."

Passing over many a page full of thought and instructions on the great questions agitating society, we must close with speaking of his terrible arraignment of Napoleon Bonaparte. Broad and liberal as he was, he yet lived through the *coup d'état* and the empire of Louis Napoleon, and his feeling against the older and greater representative of that family was doubtless embittered by that circumstance. Nowhere have we ever seen condemnation more fierce and sweeping. He tries him by a sort of subjective analysis, declaring that "history has not painted him as he was." His own summary is that he was "the eldest son of the children of the demons, that is to say the most intense, the most powerful incarnation of the principle of evil which the human form has ever clothed."

We can only say that it seems to us impossible that such a monster could have won the reverence, admiration and personal affection of a people, as Napoleon with all his faults did. The effects are not accounted for by the cause. It is, however, wise to study the portrait painted by this brave and true-hearted even if prejudiced observer.

It is always a gain to know another brave and true soul, and we feel refreshed and invigorated by coming into relation with this upright and intelligent Frenchman who helps us to look at the world of life and thought with his eyes. E. D. CHENEY.

#### NOTES.

The death of the Emperor Frederick III, apart from the sorrow and sympathy awakened for the mourning subjects of a sister nation, will be lamented by all who have at heart the interests of liberal thought and politics in continental Europe. The sterling qualities which marked the hero of Sadowa and Wörth, the singleness of heart and beneficent disposition which so endeared him to the affections of his people, foretold for Germany a reign of

national self-respect and of peaceful, liberal development. We have all followed him in the sad affliction which has at last blasted these promises. We believe that the rumors of William II.'s warlike disposition and selfish ambition will prove unfounded, and hope that the exemplary career and sad fate of his father will influence and determine his policy.

In Frederick III. the Free-masonry of the empire have lost a staunch friend and influential patron. Masonic institutions in Germany differ from the Masonry of our own country, in so far as they embody a more progressive spirit and represent a sturdy, reverent free-thought. Their ideas, their aims and their principles of action have been deepened by the philosophy of men like Goethe, Schiller, and Lessing, and we may therefore well understand the far-reaching influence which the sanction and sympathy of royal patronage have exercised through its foremost exponent of humane liberalism.

We have recently received at our office copies of M. Francois Coppée's appeal in verse to the late Emperor. It is a noble tribute to his character and political intentions, prefacing a request for the restitution of Alsace and Lorraine as the only warranty of international peace and as the fitting crown of a career so glorious. Accompanying the same we received a copy of Ernest Lemcke's response in French verse to the appeal of M. Coppée, written from the German standpoint. Both poems may be obtained from B. Westermann & Co., of 838 Broadway, New York.

George Kennan's Siberian paper in the *July Century* will be called "The Steppes of the Irish," and it will include an account of a long ride in an out-of-the-way part of Siberia, among the Kirghis and the Tartars.

Mr. Louis Prang, the head of the famous Art Publishing Firm of Boston, has contributed to *The American Lithographer and Printer* a concise and excellently written article on *Our Tariff*. He says that his business, according to the principle of protection would derive great benefit from a Tariff. But the fact is it has been built up independent of, and even in spite of protection. He says:

"When I find my business will not hold its own under natural conditions, I shall give it up. \* \* \*

"Protection has no doubt fostered a few old established industries and created a number of new ones, but at what a terrible cost to the nation! It has to a great degree emasculated our industrial life, it has taken out of it the spirit, the freedom, the character. \* \* \* It has un-Americanized us by making narrow, selfish views dominant, where the fathers of this Republic proudly declared that a broad humanity should be the leading principle of American civilization. \* \* \*

"Tariff taxation has degraded us from the position of self-reliant freemen to the abject condition of industrial cowards, crying and begging like babes for more protection against the very nations we are so fond of decrying as beneath us in the social scale. \* \* \*

The *Atlantic Monthly* for July discusses in the "Contributor's Club" "The Science of Names."

"Writers it is maintained spend much time and thought in selecting a name for a play or novel, for they know that success is largely dependent on it. Parents, however, are strangely careless and unscientific in giving names to children. \* \* \*

"Avoid odd, or eccentric, or poetic combinations, and be guided by euphonic quality only. \* \* \*

"The best form of name is a dactyl and a spondee, like 'Jeremy Taylor.'"



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

## CHAPTER XVII.—Continued.

Mr. Hummel looked meditatively on the spot where the Doctor had stood.

He was during the whole day in a mild, philanthropic mood, which he at first showed by philosophizing with his book-keeper.

"Have you ever raised bees?" he asked him, over the counter.

"No, Mr. Hummel," replied he; "how could I manage it?"

"You are not very enterprising," continued Hummel, reproachfully. "Why should you not give yourself this pleasure?"

"I live in a garret, Mr. Hummel."

"That does not matter. By the new inventions you may keep bees in a tobacco-box. You put the swarm in, open the window, and from time to time cut your honey out. You might become a rich man by it. You will say that these insects might sting your fellow-lodgers and neighbors; do not mind that; such views are old-fashioned. Follow the example of certain other people, who place their bee-hives close to the street in order to save the expense for sugar."

The book-keeper seemed to wish to comply with this proposition.

"If you mean——" he replied humbly.

"The devil I mean, sir," interrupted Hummel; "do not think of coming to my office with a swarm of bees in your pocket. I am determined under no circumstances to suffer such a nuisance. I am Bumble-bee† enough for this street and I object to all humming and swarming about my house and garden."

In the afternoon, when he was taking a walk in the garden with his wife and daughter, he suddenly stopped.

"What was it that flew through the air?"

"It was a beetle," said his wife.

"It was a bee," said Hummel. "Are this rabble beginning to fly about. If there is anything I detest, it is bees. Why there is another. They annoy you, Phillipine."

"I cannot say so," she replied.

A few minutes after, a bee flew about Laura's curls, and she was obliged to protect herself with a parasol from the little worker, who mistook her cheeks for a peach.

"It is strange; they were not so numerous formerly," said Hummel, to the ladies; "it seems to me that a swarm of bees must have established itself in a hollow tree of the park. The park-keeper sleeps out

there on a bench. You are on good terms with the man; call his attention to it. The vermin are insufferable."

Madam Hummel consented to make inquiries, and the park-keeper promised to look to it. After a time he came to the hedge, and called out, in a low voice:

"Madam Hummel."

"The man calls you," said Hummel.

"They come from the garden of Mr. Hahn," reported the park-keeper, cautiously; "there is a bee-hive there."

"Really?" asked Hummel. "Is it possible that Hahn should have chosen this amusement?"

Laura looked at her father anxiously.

"I am a peaceful man, keeper, and I cannot believe my neighbor would do us such an injury."

"It is certain, Mr. Hummel," said the park-keeper; "see, there is one of the yellow things now."

"That's so," cried Hummel, shaking his head; "it's yellow."

"Don't mind, Henry; perhaps it will not be so bad," said his wife, soothingly.

"Not so bad?" asked Hummel, angrily. "Shall I have to see the bees buzzing around your nose? Shall I have to suffer my wife to go about the whole summer with her nose swollen up as large as an apple? Prepare a room for the surgeon immediately: he will never be out of our house during the next month."

Laura approached her father.

"I can see you wish to begin a quarrel anew with our neighbors: if you love me, do not do so. I cannot tell you, father, how much this quarreling annoys me. Indeed I have suffered too much from it."

"I believe you," replied Hummel, cheerfully. "But it is because I love you that I must in good time put an end to this annoyance from over there, before these winged nuisances carry away honey from our garden. I don't intend to have you attacked by the bees of any of our neighbors, do you understand me?"

Laura turned and looked gloomily in the water, on which the fallen catkins of the birch were swimming slowly towards the town.

"Do something, keeper, to preserve peace between neighbors," continued Hummel. "Take my compliments to Mr. Hahn, with the request from me that he will remove his bees, so that I may not be obliged to call in the police again."

"I will tell him, Mr. Hummel, that the bees are disagreeable to the neighborhood; for it is true the gardens are small."

"They are so narrow that one could sell them in a bandbox at a Christmas fair," assented Hummel. "Do it out of pity to the bees themselves. Our three daffodils will not last them long as food, and after-

\* Translation Copyrighted.

† Hummel is also the German for bumblebee.



wards there will be nothing for them but to gnaw the iron railings."

He gave the park-keeper a few coppers, and added, to his wife and daughter:

"You see how forbearing I am to our neighbor, for the sake of peace."

The ladies returned to the house, depressed and full of sad forebodings.

As the park-keeper did not appear again, Mr. Hummel watched for him on the following day.

"Well, how is it?" he asked.

"Mr. Hahn thinks that the hives are far enough from the street; they are behind a bush and they annoy no one. He will not give up his rights."

"There it is!" broke out Hummel. "You are my witness that I have done all in the power of man to avoid a quarrel. The fellow has forgotten that there is a Section 167. I am sorry, keeper; but the police must be the last resort."

Mr. Hummel conferred confidentially with a policeman. Mr. Hahn became excited and angry when he was ordered to appear in court, but Hummel had in some measure the best of it, for the police advised Mr. Hahn to avoid annoyance to the neighbours and passers-by by the removal of the hive. Mr. Hahn had taken great pleasure in his bees; their hive had been fitted with all the new improvements, and they were not like our irritable German bees; they were an Italian sort, which only sting when provoked to the utmost. But this was all of no avail, for even the Doctor and his mother herself begged that the hives might be removed; so, one dark night they were carried away, with bitter and depressed feelings, into the country. In the place which they had occupied he erected some starlings' nests on poles. They were a poor comfort. The starlings had, according to old customs, sent messengers of their race through the country and hired their summer dwellings, and only the sparrows took exulting possession of the abode, and like disorderly householders, left long blades of grass hanging from their nests. Mr. Hummel shrugged his shoulders contemptuously, and in a loud bass voice, called the new invention the sparrow telegraph.

The garden amusements had begun; the sad prognostication had become a reality; suspicion and gloomy looks once more divided the neighboring houses.

#### CHAPTER XVIII.

##### CLOUDLETS.

A Professor's wife has much to bear with her husband. When Ilse found herself seated with her friends, the wives of Professors Raschke, Struvelius, and Günther, over a cozy cup of coffee, which was by no means slighted, all manner of things came to light.

Conversation with these cultured ladies was in-

deed delightful. It first touched lightly on the subject of servants, and the troubles of housekeeping called forth a volubility of chatter, like the croaking of frogs in a pond, and Ilse wondered that even Flamina Struvelius should express herself so earnestly on the subject of pickling gherkins, and that she should anxiously inquire as to the marks of age on a plucked goose. Merry Mrs. Günther shocked the ladies of greater experience and at the same time made them laugh, when she told them she could not bear the cry of little children, and that as to her own—of which she had none yet—she would from the beginning train them to quiet habits with the rod. As has been said, the conversation rambled from greater matters to small talk like this. And amidst other trivial remarks it naturally happened that men were quietly discussed, and it was evident that, although the remarks were made as to men in general, each thought of her own husband, and each, without expressing it, thought of the secret load of cares she had to bear, and each one convinced her hearers that her own individual husband was also difficult to manage. The lot of Mrs. Raschke was indeed not to be concealed, as it was notorious throughout the whole town. It was well known that one market-day her husband went to the lecture-room in a brilliant orange and blue dressing-gown, of a Turkish pattern. And the collegians, who loved him dearly and knew his habits well, could not suppress a loud laugh, while Raschke hung his dressing-gown quietly over the reading-desk and began to lecture in his shirt sleeves, and returned home in the great-coat of a student. Since then Mrs. Raschke never let him go out without looking after him herself. It also transpired that after living ten years in the town he constantly lost his way, and she did not dare to change her residence, being convinced that if she did, the Professor would always be going back to his old abode. Struvelius also gave trouble. The last affair of importance had come to Ilse's personal knowledge; but it was also known that he required his wife to correct the proof-sheets of his Latin writings, as she had a slight knowledge of the language—and that he could not resist giving orders to traveling wine merchants. Mrs. Struvelius, after her marriage, found her cellar full of large and small casks of wine, which had as yet not been bottled, while he himself complained bitterly that he could not replenish his stock. And even little Mrs. Günther related that her husband could not give up working at night; and that on one occasion, poking about with a lamp amongst the books, he came too close to a curtain, which caught fire, and on pulling it down he burnt his hands, and rushed into the bedroom with his fingers black as coals, more like an Othello than a mineralogist.



Ilse related nothing of her short career, but she had also had some experience. True, her husband was very good about working at night, was very discreet over his wine, though on great occasions he drank his glass bravely, as became a German Professor. But as to his eating, matters were very unsatisfactory. Certainly it does not do to care too much about food, especially for a Professor, but not to be able to distinguish a duck from a goose is rather discouraging for her who has striven to procure him a dainty. As for carving he was useless. The tough Stymphalian birds which Hercules destroyed, and the ungenial Phoenix, mentioned with such respect by his Tacitus, were much better known to him than the form of a turkey. Ilse was not one of those women who delight to spend the whole day in the kitchen, but she understood cooking, and prided herself on giving a dinner worthy of her husband. But all was in vain. He sometimes tried to praise the dishes, but Ilse clearly saw that he was not sincere. Once when she set a splendid pheasant before him, he saw by her expression that she expected some remark, so he praised the cook for having secured such a fine chicken. Ilse sighed and tried to make him understand the difference, but had to be content with Gabriel's sympathizing remark: "It's all useless. I know my master; he can't tell one thing from another!" Since then, Ilse had to rest content with the compliments that the gentlemen invited to tea paid her at the table. But this was no compensation. The Doctor also was not remarkable for his acquirements in this direction. It was lamentable and humiliating to see the two gentlemen over a brace of snipes which her father had sent them from the country.

The Professor, however, looked up to the Doctor as a thoroughly practical man, because he had had some experience in buying and managing, and the former was accustomed to call in his friend as an adviser on many little daily occurrences. The tailor brought samples of cloth for a new coat. The Professor looked at the various colors of the samples in a distracted manner. "Ilse, send for the Doctor to help me make a choice!" Ilse sent, but unwillingly; no Doctor was needed, she thought, to select a coat, and if her dear husband could not make up his mind, was not she there? But that was of no avail; the Doctor selected the coat, waistcoat, and the rest of the Professor's wardrobe. Ilse listened to the orders in silence, but she was really angry with the Doctor, and even a little with her husband. She quietly determined that things should not continue so. She hastily calculated her pocket-money, called the tailor into her room, and ordered a second suit for her husband, with the injunction to make this one first. When the tailor brought the clothes home, she asked

her husband how he liked the new suit. He praised it. Then she said: "To please you I make myself as nice-looking as I can; for my sake wear what I have made for you. If I have succeeded this time, I hope that I may in future choose and be responsible for your wardrobe."

But the Doctor looked quite amazed when he met the Professor in a different suit. It so happened, however, that he had nothing to find fault with; and when Ilse was sitting alone with the Doctor, she began—

"Both of us love my husband; therefore let us come to some agreement about him. You have the greatest right to be the confidant of his labors, and I should never venture to place myself on an equality with you respecting them. But where my judgment is sufficient I may at least be useful to him, and what little I can, dear Doctor, pray allow me to do."

She said this with a smile; but the Doctor walked gravely up to her.

"You are expressing what I have long felt. I have lived with him for many years, and have often lived for him, and that was a time of real happiness to me; but now I fully recognize that it is you who have the best claim to him. I shall have to endeavor to control myself in many things; it will be hard for me, but it is better it should be so."

"My words were not so intended," said Ilse, disturbed.

"I well understand what you meant; and I know also that you are perfectly right. Your task is not alone to make his life comfortable. I see how earnestly you strive to become his confidant. Believe me, the warmest wish of my heart is that in time you should succeed."

He left with an earnest farewell, and Ilse saw how deeply moved he was. The Doctor had touched a chord, the vibration of which, midst all her happiness, she felt with pain. Her household affairs gave her little trouble, and all went so smoothly that she took no credit to herself for her management. But still it pained her to see how little her work was appreciated by her husband, and she thought to herself, "What I am able to do for him makes no impression on him, and when I cannot elevate my mind to his, he probably feels the want of a soul that can understand him better."

These were transient clouds which swept over the sunny landscape, but they came again and again as Ilse sat brooding alone in her room.

(To be continued.)

For modes of faith let graceless zealots fight,  
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—Pope.



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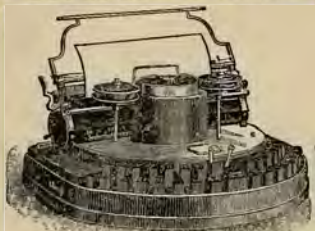
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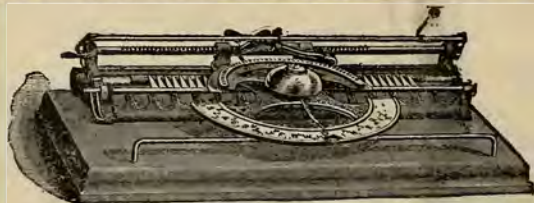
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"People do no longer believe in witches nor in ghosts. But the belief in disembodied thought will die very hard. \* \* \*

"As little as we possess a thing called hunger because we are hungry, do we possess a thing called reason because we are rational. Why, then, should we write it with a Capital R, and make a goddess of Reason and worship her, as she was actually worshipped in the streets of Paris? \* \* \*

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 44. (VOL. II.—18.)

CHICAGO, JUNE 28, 1888.

{ Two Dollars per Year.  
} Single Copies, 20 cts.

## THE MASSES AS REFORMERS.

BY MORRISON I. SWIFT.

The hopes and efforts of Jesus were centred chiefly in the poor. Few do not know this, and yet only here and there does anyone perceive the bearing of that choice of the incomparable teacher's upon social reform of our own time. The pith of Christ's insight was this: that the poor can be utterly devoted to whatever promises improvement, whereas the rich are either taken up with other things, or else they think that general betterment means loss to them.

Our age differs from that of Christ in that the desire for general good is shared by many of the prosperous classes. Bearing this difference in mind the lesson which we of to-day seem reluctant to learn from Christ's method is willingness to use to the utmost the raw reformatory power that lies latent in the so-called masses. In our period of advanced culture this is singular. It is not owing altogether to ignorance, for nearly every intelligent person, in perfectly honest and private conversation, admits that our present society is miserable. It is due mainly to ignorance united with dread and a surviving selfishness.

These barriers should be removed to level the way to progress. The greatest of ignorances is the failure to perceive that reform is the great duty to which all men are called: the continual improvement of whatever is. To dread reform is to misunderstand. Whatever is imperfect in society is injurious to all classes. A reform at one point reaches every point. Hence, selfishness, which opposes innovation and change, is mistaken and narrow-sighted. It is the duty of the hour to make this principle, *that reform benefits all*, known and proven to every class and individual. By this method the desire for reform is to be extended.

But suppose this diffusion of knowledge failed to create a thirst for advancement. The method of Christ remains. Reformers may turn from the stolidly prosperous to the ill-to-do. The awakening masses are the raw material for reform.

The day has come when men seek for absolute justice. "Labor, the world over, has always in different degrees been the servant of capital; and generally, when not enslaved by law, the remuneration has been so slight that accumulations were nearly impossible. Any untoward circumstance might then reduce the la-

borer to destitution; and if destitute he might better be slave than free, for the slave must be supported by the master, when the free laborer might be left to starve."\* Is this justice? Is it possible for men who desire the improvement of the race to longer acquiesce in a social order that involves and sanctions this degradation of the majority? The characteristic of the present social agitation is that there are now many who will not acquiesce. They are convinced that the claims of the down-trodden must at last be heard, that the purer morality that is now stirring in the world will permit no further compromises for the suppression of one class for the advantage of another. The new morality cannot be partial to any individual and yet true to itself. It therefore declares that all privileges which give to the few an unearned and undeserved advantage must be withdrawn. It demands this on the ground of inherent right, and as the one means of bringing about the *genuine* good of all.

It is strange that thinking men should wait for the masses to *demand* their rights. Why is it not recognized that it is the duty of the more advanced to raise others to their level; that those who enjoy privileges that have descended to them from more barbarous times, are under the sternest obligation to renounce these privileges if they cannot be conferred upon their fellows? And yet, by most people, the action of the laboring classes, who are now clamoring for their rights, is denounced. The masses ask simple justice. In return they are treated as foes of order and right. Are they arrayed against goodness because they are tired of being "the servant of capital," and because they are at length becoming intelligent enough to see that when their remuneration is so slight as to make accumulations nearly impossible, they are not justly used? We are reminded of a significant sentence of Mr. Herbert Spencer's: "The sinecurist thinks himself rightly indignant at any disregard of his vested interests." Those who seek what the decrees of common morality award to them, are the friends of a settled peace and prosperity. The enemies of righteousness and of humanity and peace are those who seek to retain advantages that custom has conferred upon them at the expense of their less fortunate fellows.

\*Judge T. M. Cooley: "Labor and Capital before the Law"—*North American Review*, December, 1884.



Truly, there is no longer excuse for a timid utterance of conviction upon this subject. Men of all classes must be plainly taught their rights and assisted to obtain them. Note the situation: one class of men are being treated with wholesale injustice. They are ignorant and self-distrustful, and if not helped from without the wrong they suffer must go on; if informed of their rights and enlightened, they will be encouraged to undertake the contest for liberation. Is there any doubt that they should be amply taught and their efforts stimulated and supported? But it is dangerous, we are told. Dangerous to what? Dangerous to the continuation of injustice, and to those who uphold unrighteous practices. It is within the power of those who are endangered to avert the danger. If they confuse traditional privileges with rights and will not yield to reason, shall they be allowed to decree deprivation and suffering to half the race until such a time as they may be pleased to see and voluntarily perform their duty? The plea for silence and repressive conservatism comes to nothing less than this. But such persons wrong the new conscience and solicit the impossible. The paramount duty of to-day is reform and no class must be permitted to restrain it.

But, we hear it said, there is danger in a larger sense. The equilibrium of society may be lost in a violent outbreak of passion and its even, though gradual, development for a long time checked. This opinion numbers many supporters and they even deprecate a public discussion of the difficulties in which society has become involved, lest some one shall be aroused. 'Surely every sensible and observing man,' it has been said, 'knows that these articles\* feed the flames of anarchical discontent all over the country; that there is nothing more mischievous than persuading ignorant men that they are suffering from evils for which nobody knows any peaceful remedy.' From the point of view of those who live on the labor of others it is supremely mischievous. But peaceful remedies are known and it awaits only the pleasure of the luxuried and propertied classes to adopt them. It is very singular for these classes to pose as the defenders of peace. The silence in which they would fain shroud their graspingness and iniquity merits of all proposals the sternest rejection. Ostensibly its aim is peace, but the near future only concerns it. If intelligent people relapsed into passive spectators and uttered hereafter no word of complaint or enlightenment, if they even made themselves pliant instruments in the hands of the industrial lords and their yachting, care-free, dividend-drawing children and children's children, and spent their truth-loving, heroic, useful lives in proving to the crushed poor that broadcloth is cheaper than it was and that they have no grievances, the revolutionary fires that have been lighted would

probably smoulder for a longer time, but at length they would break forth with ten times aggravated and quenchless fury. The experience of ages should have taught the insanity of this policy. Making specious pretensions to peace it subverts it. To be silent and inactive because the end of the way of life is lost in the dimness of distance is as wise as if a diseased man were to refuse all remedies or the discussion of his malady until an infallible cure should be discovered. The entrance to the way of life lies close before us and many steps are plain. Our hushed despair or silencing greed for more time to gather spoils delays our entrance, but it should be remembered that the Nemesis we tempt is not soothed by the mere passage of time. Retribution or expiation through justice awaits us. In Germany, many people see that a revolution is approaching, but they say, "Let us support the army and keep it off until we are dead." Many of us are like these pusillanimous Germans. We wish to be rich and enjoy ourselves, and to let another settle the cost. If we sincerely desire assured and lasting peace it can be secured only by admitting and removing social grievances. We leave this duty to others only at our peril and theirs. The policy of repression is not the policy of peace.

Society contains a species of persons whose characteristics have been at no time veiled in obscurity. Their motive is the exaltation of self, and no solicitation for others restrains them. Were we to fold our hands and await the softening of their hearts, we may be sure that amelioration would never come. These people are aroused to unselfish action only by the stress of legal enactment, or public sentiment, or imminent force. It would be preposterous to allow this class to plunge the whole of society into disaster. They must be made to bow their ambition to the general welfare, and it is by discussion, by enlightening all classes upon the subject of social wrongs, that this end is to be gained. The dangerous classes are not the poor. They are these arrogant obstructionists. They make revolution and violence almost inevitable and coolly transfer the entire responsibility to those whom their abominable injustice has made desperate. Then they say, 'Do not tell ignorant men that they are suffering or they may become discontented and dangerous.' This is prodigious effrontery. In this social crisis men of such stamp are public enemies. They aver that a statement of facts will precipitate a revolution, and they go on creating the revolutionary facts. Let us publish the truth and place the responsibility where it belongs. Let us have a revolution if there are not enough men of character to effect reform by quiet means.

But our hopes are buoyant because we live in America. The duke of Marlborough visits Chicago and remarks upon 'the contrast between the masses of

\* Those that describe the social injustice.



America, meaning the working classes, and those of Europe. Here they are better clothed and fed, and live more comfortably and in better houses. The average of intelligence here is much higher than in England.\* The foreign nobilities know these things and yet they continue. London has its recurring riots from men who cannot get bread, but in the higher circles expenditure for luxuries is not one whit less profuse. We shall not be greatly surprised at a revolution abroad. But the conditions are more favorable here. Trained under different ideas, as the great body of Americans have been, we may still hope to see justice peaceably done.

The masses are the modern opportunity. Those who wish improvement must join hands with this class, must show them what they can now do for society and themselves by patience and resolution, must elaborate and execute methods by which they can be educated and prepared for their mission while elevating themselves in the very process of preparation for larger achievements. Social advancement is for the interest of the masses; the class that opposes them wrongly imagines that it is to be sacrificed in this progressive movement. The masses have faith that immense social progress is possible; the well-to-do are skeptical and pessimistic on this point. The masses are not wedded to the numerous social customs of other classes, that are known to be destructive of vitality and are nevertheless steadily persisted in. They have not crystallized in favor of any scheme or theory of education, whether injurious or not, and they are rapidly freeing themselves from the cramping influences of theological dogmatism. In a word, they are nearer the earth, and except for overwork and insufficient food they are healthier, and, therefore, of better race material. They are more natural, and they stand nearer the solid realities of life. Their vital principle is better and they will rear tough children in the midst of hardship and unsanitary conditions to which those cradled in luxury would immediately succumb. Their minds are more fluid and therefore they are more capable of growth into a surviving harmony with the conditions of life, than those whose adaptations were formed earlier and in less enlightened times. It remains for them to apply these advantages to useful ends. Their day is dawning; they are to become an infinitely more important factor in the life of the race than ever before; it rests with them to show how far they can carry humanity in its upward course.

Evil events from evil causes spring.

—Aristophanes.

He who does evil that good may come,  
Pays a toll to the devil to let him into heaven.—Hare.

\* Newspaper report.

## BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.

BY FELIX L. OSWALD, M. D.

PART X.

### EDUCATION—Continued.

The chief purpose of systematic gymnastics is the uniform development of the muscular organism, and "all-round athletes," as our professional trainers call them, often become the finest specimens of physical manhood; but they rarely attain supremacy in the mastery of any special exercise. In the results of mental and moral education, too, the pre-eminent development of any special faculty generally indicates one-sidedness of culture. The moral sympathies, as well as the intellectual and physical energies, can become specialized. The Spanish conquerors of the New World treated the aboriginal population very much as the settlers of a primeval forest treat the wild beasts and birds of the wilderness; but their race-prejudice by no means implies an absolute deficiency of the social instinct, and travelers in South America agree that the aristocratic planters of the slave-states treat a white visitor with a chivalrous hospitality almost unknown in countries of social equality and freedom. There was a time when the hatred of foreigners was encouraged as a civic virtue. To the Romans of the early republican era every alien was an enemy. The Greeks of the classic age of Hellenic civilization despised all non-Grecian nations as barbarians. Prisoners of war were generally enslaved; but that era of national antipathies was at the same time the golden age of patriotism and friendship. Altruism had become specialized, but within its limited sphere acted with an intensity unknown to our latter-day ethics of cosmopolitan philanthropy. "Traveling," says Thomas Jefferson, "makes men wiser, but less happy. They gather knowledge, but they are, after all, subject to recollections mixed with regret; *their affections are weakened by being extended over more objects.*" When the social sympathies are concentrated upon a single tribe of the human race, Jonathan, Pylades and Atticus can claim a share of those affections which in an age of cosmopolitan tendencies becomes diffused to a degree incompatible with intensity of devotion; and a recognition of that fact may have inclined the apostle of universal love to discourage individual attachments. "He who hates not his father, mother, sister and brother, cannot be my disciple." The celibacy of mediæval anchorites and modern priests is the natural outcome of that tendency.

The tenet of universal brotherhood was, indeed, specially obnoxious to the national patriotism of antiquity, and it must be admitted that the age of monastic ethics produced but few great patriots; though, on the other hand, religious fervor assumed a degree



of intensity wholly unknown to the contemporaries of Regulus and Miltiades. Specialized education produced those heroes of civic virtue who stood ready to save their country in despite of fortune and fate, and specialized education of a different type produced those martyrs of faith who preferred the interests of a dogma to the temporal welfare of their friends, families and countrymen. Cato and Aristides were embodiments of republican patriotism and heroic manhood; Symon Stylites and Louise Lateau were embodiments of world-renouncing faith. Their equal faculties of self-denying devotion had been developed in diametrically opposite directions.

The functions of the intellect, too, can thus be limited to narrow grooves, and may be almost wholly excluded from special spheres of activity. There are monomaniacs who appear perfectly rational till the cross-examiner happens to touch their "sore spot"; and specialized education seems almost to have incapacitated certain minds from logical reasoning upon special topics. Their mental vision, as it were, *con-nives*, at the absurdities of their tenet, they refuse, not only to admit, but even to examine and consider the arguments of their opponent. "If so rude a comparison be permitted," says Dr. Carpenter, "just as we try if a new piece of furniture which is offered us does or does not fit into a certain recess in our apartment, and accept or decline it accordingly, so we try a new proposition which is offered to our mental acceptance. If it fits into some recess in our fabric of thought, we give our assent to it, by admitting it to its appropriate place. But if it neither fits it, nor can be brought to fit, the mind automatically rejects it."

Educational prejudices long disqualified the minds of our forefathers from accepting the most cogent arguments in favor of woman's rights, and for nearly seven centuries private doubts in the unspeakable absurdities of the witchcraft delusion were at once suppressed as heresies unworthy of serious discussion. Jean Bodin, in his diatribes against the skeptics of northern Europe, could justly claim that "no other crime ever punished by the law of Christian courts, has in all its details been established by a more abundant accumulation of evidence than the crime of sorcery." Not only was the possibility of witchcraft in full accordance with the dogmas of the dominant creed, and the carefully inoculated tenets of a vast plurality of the Christian population, but the belief in that reality seemed supported even by the evidence of the senses, as recorded in the testimony of innumerable eye-witnesses. Not the mental, but the bodily eye had seen demons materialized at the behest of the enchanter; witches had been watched in their aerial excursions or in the act of brewing storms from a potfull of soap-suds, ears had heard the voice and hands felt

the claws of the *incubus*; the archfiend himself had appeared in bodily form and tried the charm of his sophisms or bribes on a shuddering audience. Such visions were not the exclusive privilege of idiots and hysteric nuns. The spirits invoked by the incantations of the wizard Tauler, appeared to many of his learned friends. Thomas Aquinas details an interview with the familiar of a female relative, and Dr. Nicholas Remigius, judge of the criminal court of Lorraine and a man of vast erudition, devoted his own person to a death of torture by reporting his success in raising the spirits of the dead. The re-embodied souls of departed criminals, he said, had visited his study and given him a circumstantial account of their hardships in Hades. On one occasion an apparition of that sort had blistered his skin by touching him with a hand still grimy with the superheated soot of Gehenna. It would be preposterous to ascribe such assertions to intentional deceit, and the only alternative explanation can be found in the theory that the senses of the physical organism were perverted by the influence of intense conviction, aided perhaps by the influence of vivid expectancy. A curious instance of the power which such influence may acquire even on the minds of unprejudiced persons, is quoted by Professor Tuke, upon the testimony of numerous witnesses: "During the conflagration at the Crystal Palace in the winter of 1866-67, when the animals were destroyed by fire, it was supposed that the chimpanzee had succeeded in escaping from his cage. Attracted to the roof, with this expectation in full force, men saw the unhappy animal holding on to it, and writhing in agony to get astride one of the iron ribs. It need not be said, that its struggles were watched by those below with breathless suspense, and, as the newspapers expressed it, with "sickening dread." But there was no animal whatever there, and all this feeling was thrown away upon a tattered piece of blind, so torn as to resemble, to the eye of fancy, the body, arms and legs of an ape."

Currents of thought, persistently concentrated upon a single object, may similarly bias the testimony of the bodily senses. In dreams all vivid thoughts become visions, and the delusions of an excited imagination have been well defined as "day-dreams." Sir Walter Scott, in his "Demonology and Witchcraft" (p. 45), describes the emotions awakened by the news of Lord Byron's death, and how he passed many hours in reading an account of the personal habits and peculiarities of his departed friend. Soon after, on crossing a hall, ornamented with relics and curiosities of natural history, he saw, with his bodily eyes, the subject of his reveries standing before him, a materialized phantom of the mind, true to life in the veriest details of feature and dress. "He stopped for a moment, so as to notice the wonderful accuracy with



which fancy had impressed upon the bodily eye the peculiarities of dress and posture of the illustrious poet. Sensible, however, of the delusion, he felt no sentiment save that of wonder at the extraordinary accuracy of the resemblance, and stepped onwards toward the figure, which resolved itself, as he approached, into the various materials of which it was composed. These were merely a screen occupied by great coats, shawls, plaids, and such other articles as are usually found in a country entrance-hall. He returned to the spot from which he had seen the phantom and tried with all his might to recall it by the force of his *Will*, but in vain,—a good illustration of the slight influence of volition over imagination, compared with that of a mental image or idea acting upon the sensorial centres, and distorting or moulding into other forms the impression received from objects of the senses."

Our mediæval forefathers accepted the dogmas of their ghost-creed as modern scholars accept the axioms of mathematics and chemistry. Besides, the supposed ineffable importance of those dogmas kept the mind constantly riveted upon their objects. There is no doubt, therefore, that educational influences alone can abundantly explain all the prodigies of supernaturalism that turned the Middle Ages into a perpetual Witches Sabbath of unearthly apparitions.

Educational prepossessions alone, can equally well account for differences of opinion upon many subjects of modern controversies, which to one type of minds seem to furnish abundant demonstration of tenets wholly rejected by another. To a docile disciple of European absolutism, for instance, the divine right of kings and the duty of subordination to the ordinances of established governments seem equally self-evident. To an American democrat of the Jeffersonian school the belief in those rights and duties seems a pitiable relic of Mediæval barbarism. Modern theologians still extol the sublimity of scriptural rhetoric as incomparably superior to the grandest products of secular literature. With the same emphasis of honest conviction the disciples of Voltaire execrate that rhetoric as a mass of sickening rant, as inferior to the diction of pagan orators as the sculptures of a Fijee fetich-maker are to the masterpieces of Phidias and Praxiteles.

The language of sincere enthusiasm cannot be imitated by the sophisms of hypocrisy, and nothing but a *contrasting bias of mental vision* will explain such extremes of dogmatic divergence as those of the subjoined rhapsodies, which, as *ne plus ultras* of their kind, deserve attention and commemoration. Two representative American journals of nearly the same date, publish the following "defence" and "exposure" of modern spiritualism: "Spiritualism teaches us to

love our fellow men and leave the world better than we found it. The bright, pure, and loving, the grand in wisdom, the strong in power, will claim brotherhood with such humanity. Mediums will grow into angel instruments, and circles will lift men heavenward. The inner life of the mortal shall be aflame with light from spheres where Nature and man dwell together in eternal harmony. And this is the fruit of modern Spiritualism when sown in the heart of any man or woman who would fain climb heavenward." (*Religio-Philosophical Journal*, May 19, 1888.)

"Of all impositions, of all frauds, of all gross deceits and villainous humbugs practiced in the world, those by Spiritualistic mediums are the foulest and worst. The bunco-steerer, the confidence man, the green-goods merchant and the monte-sharp only rob their customers of money by false pretense; while these swindlers, playing upon the hopes and fears of weak hearts, trifling with the grief of the widow and the stricken mother, and employing as their agent the agony of every anguished heart whose treasure is in the grave, not only extort money by vile trickery, but often drive their deluded victims from health and wealth into poverty and disease, and finally rob them of their reason and drive them to the madhouse. This is not exaggeration but simple fact. Our wise legislators have provided means for the punishment of other swindlers, but these miscreants are allowed to practice under the protection of the law. Again and again have they been exposed. Again and again the whole fabric of spiritualistic manifestations has been shown to be deception and trickery; homes have been ruined, fortunes lost, evils innumerable wrought in families upon which the curse of credulity has fallen, and still not one step taken towards the protection of the community from the gang of charlatans invading it." (*N. Y. World*, quoted in the *New Yorker*, May 26, '88.)

If educational bias can inspire such diverging views on questions open to contemporary tests of evidence, shall we wonder at the difference of opinion concerning the historical enigmas of bygone centuries or the interpretation of ancient dogmas?

#### AGNOSTICISM AND RELIGION.

A DISCUSSION OF THE FIELD-INGERSOLL CONTROVERSY AND OF MR. GLADSTONE'S REMARKS UPON THE SAME.

(Concluded.)

The test which should be applied as to whether a religion is true or false, is still the same as was recommended almost two thousand years ago by Christ, when he said: "Ye shall know them by their fruits." And on this main subject our doughty champions agree, but they ignore their agreement as much as possible, mentioning it only incidentally. Mr. Field says to Col. Ingersoll (on p. 138):



"You professed great respect for the Ethics of Christianity, and for its Author. 'Make the Sermon on the Mount your religion,' you said 'and there I am with you.'"

Col. Ingersoll himself makes a similar concession (on p. 502):

"If you mean by 'a power making for righteousness' that man, as he becomes civilized, as he becomes intelligent, not only takes advantage of the forces of Nature for his own benefit, but perceives more and more clearly that if he is to be happy he must live in harmony with the conditions of his being, in harmony with the facts with which he is surrounded, in harmony with the relations which he sustains to others and to things; if this is what you mean, then there is 'a power making for righteousness.'"

These points of agreement, important as they are, have been merely touched upon, and come in as if by chance; they are choked by the briars and brambles of a passionate pleading for the side issues of the debate. Mr. Field cannot separate this idea of a power making for righteousness in Nature from the belief in a personal and supernatural God. Because there is a power making for righteousness *in* nature, he speaks of "a power making for righteousness *behind* nature." And if Col. Ingersoll insists "that there can by no possibility be any evidence of the existence of such a power" (supposing that it is "something supernatural back of Nature"), Mr. Field declares that the Colonel's views undermine morality.

Mr. Field evidently limits the conception of nature to the very lowest natural manifestations. The moral nature of man is to him supernatural, and he conceives it not as an outcome of the natural, but as something essentially different from nature, which originates in the non-natural.

Col. Ingersoll, on the other hand, identifies religion with superstition. Christ has characterized his view of religion as Love of God and man\* and the love of God is proved by doing the will of his Father in Heaven or in other words by leading a moral life.

In speaking of Christianity, Col. Ingersoll should judge of it as it has been defined by its founder. He should take it in its noblest and highest conception. But Religion is to him superstition, for "religion has to do with the supernatural."† He says "Christianity, superstition—that is to say the supernatural. . ." (p. 499). That the central idea of all religions is man's aspiration to live morally and to remain in harmony with the surrounding facts of Nature and of human society—is only touched upon in the passage quoted above and then it is ignored. And because this central truth of religion is interwoven with errors, because

most Christians have not yet freed themselves from the crude notions of supernaturalism, Col. Ingersoll rails at religion itself with a vengeance.

Supernaturalism is by no means an essential element of religion. There are religions which are not supernaturalistic, the pagan religions of Nature worship and Buddhism. We must object to both for reasons which do not lie within the scope of our present discussion. The French philosopher Auguste Comte has founded a religion of positivism, and THE OPEN COURT propounds a religion of Monism. Both are religions which have nothing to do with the imaginings of a dualistic supernaturalism. The religion of Monism, as a matter of principle, excludes the dualistic notions of superstition; it takes as its basis the unitary conception of modern science and finds in this view the best support and confirmation of the fundamental truth of religion—of ethical religion. If Col. Ingersoll hates superstition, he should object to the supernatural notions in Christianity; but must the wheat, too, be rooted up with the tares because they grow by the side of one another on the same field?

It is not to be expected that any one of the disputants will yield to the propositions of his adversary, but it is to be hoped that the progress of religious thought will be greatly benefited by the discussion. The truth in which both parties agree will remain and will shine even brighter than before. The errors common to both will disappear; they must destroy one another. And those truths which were recognized by one or the other party from a one-sided standpoint—truths which seemed contradictory—will after all be recognized as not only reconcilable to, but even complementary of, one another.

The truth in which both parties agree, is the recognition of a moral law in Nature to which man has to conform in order to live, in order to live well, and to be blessed. This truth lies at the bottom of all religions and gave to all religions their ethical import. The superstitions which threatened to smother true religion were an outgrowth of the insufficient knowledge of darker ages, but they will disappear with the advance of science. Truth is stronger than error; truth need not fear to perish in a world where the fittest survive, for truth is the fittest and it will ultimately conquer in the struggle for existence.

The servants asked the householder:

"Wilt thou then that we gather up the tares," but the householder answered them and said:

"Nay; lest while ye gather up the tares, ye root up also the wheat with them. Let both grow together until the harvest; and in the time of harvest I will say to the reapers: Gather ye together first the tares, and bind them into bundles to burn them; but gather the wheat into my barn."\*

Not unlike the zealous servants of the householder

\* St. Mark 12, 28—32.

† I find for instance no supernaturalism in the Religion of Friends as explained by David Newport on page 1061 of THE OPEN COURT. Our correspondent's view of Christianity widely differs from what Col. Ingersoll characterizes and criticizes as Christianity.

\* St. Matthew 13, 29—30.



in the Gospel, Col. Ingersoll would fain root out the wheat with the tares; he would take away religion with superstition; and on the other hand, the ecclesiastical defenders of traditional belief feel inclined to disparage that radical love of truth in the hearts of infidels. It appears to their dim eyes as tares, but it is genuine wheat of purest and most earnest religious zeal. Let the wheat and the tares grow; soon they will easily be distinguishable from one another.

Religion as the recognition of the ethical law in Nature will not be destroyed; it cannot be destroyed; and it will be more and more generally acknowledged. This religion will spread in proportion as the errors prevalent at present disappear. And the fundamental error, in which both antagonists are equally entangled, is the agnosticism of our time.

The agnosticism of Col. Ingersoll, of Mr. Gladstone and Dr. Field, does not mean that they are ignorant on certain topics only, and that they have not yet solved the religious problem; it means that the problem is insolvable. It does not merely mean that the mysteries of life are wonderful, that the world is marvelously grand, that the range of inquiry in nature is unlimited, that the solution of each problem presents new food for inquiry—all these truisms do not exclude the possibility of knowledge. Agnosticism means that the mysteries of nature *can not* be explained, and that its problems *can not* be solved.

Agnosticism appears at first sight as an expression of most sensible modesty. Who can blame a man for openly acknowledging his ignorance and who can doubt his sincerity? Socrates has been much admired for his confession, 'I know that I do not know anything!' But the agnostic outdoes Socratic wisdom and forfeits all claim to modesty by declaring that no one else can know anything about the mysteries which he himself can not explain. By changing the Unknown into the Unknowable, the agnostic does what so many hierophants and priests have done; he establishes a narrow and unwarranted dogmatism upon the firm basis of his own and other people's ignorance. And furthermore, by making of the unknown the Unknowable, the agnostic introduces into the world-problem a second magnitude, a something which is essentially different from knowable nature. The dogma of the Unknowable stamps on agnosticism the features of dualism.

This dogmatism which scientifically attempts to sanction systematic ignorance *is as injurious as any religious superstition*. It prevents progress. Goethe says: "Man must hold firm to the belief that what appears incomprehensible to him is comprehensible, since otherwise he will not investigate."\*

The agnosticism of religious dualism is based on

the belief in a spiritual world which exists somewhere above the material universe and is inaccessible to man. This dualism, which makes of man a double being, a combination of a material body and a spiritual soul, has been the source of many absurdities and superstitions, many of which have been mentioned by Col. Ingersoll. It is this dualism that Col. Ingersoll should attack—not religion, not Christianity! But this dualism is fortified in the sacredness of mysticism, and as long as its mysteries are considered as too profound for solution, it cannot be conquered. Agnosticism confesses its inability to conquer; it confesses that it can not climb the walls of that beyond where dualism keeps all its sacred treasures locked up—a beyond which is called by philosophers transcendent, because they say it transcends all human understanding.

Agnosticism by establishing the dogma of a beyond, by maintaining that a province exists which by its very nature is inaccessible to human investigation, has built a wall of protection for dualism. Within that wall, in the realm of the unknowable, there is room enough for all the goblins and ghosts of superstitious dualism. The agnostic can lay siege to dualism and its errors, he can successfully repel all sallies of dualistic absurdities, but he will never conquer, he will never vanquish his enemy, because agnosticism acknowledges the fundamental principle of dualism; it labors under the same error, as it also believes in, or at least leaves room for, a beyond of unknowable, inscrutable problems.

Mr. Spencer arrives at the idea of the unknowable in the following way:

"For, if the successively deeper interpretations of nature which constitute advancing knowledge are merely successive inclusions of special truths still more general, it obviously follows that the most general truth, not admitting of inclusion in any other, does not admit of interpretation. Manifestly, as the most general cognition at which we arrive can not be reduced to a more general one, it cannot be understood. Of necessity, therefore, explanation must eventually bring us down to the inexplicable. The deepest truth which we can get at must be unaccountable. Comprehension must become something other than comprehension before the ultimate fact can be comprehended."

But granting that an explanation means the reduction of special truths under a more general truth, we must add that the more general truth can afford an explanation only if it is better known and simpler than the more complicated instances of special truths. If this is true, the most general cognition must be the most simple; it must be self-evident as the mathematical axioms. Schopenhauer calls attention to the fact that the whole science of mathematics can not be proven, for it rests on what we call axioms, viz., truths which we take for granted. But is this an argument in favor of agnosticism? Are the ultimate

\* Quoted from the *Basis of Ethics*, E. C. Hegeler. OPEN COURT, page 21.



truths of mathematics inscrutable? Or are they not rather self-evident, so that if they are understood they need no further evidence?

The unknowable is described as the resting place of science and philosophy, but the self-evident, it must be confessed, is a much fitter resting place, which, not unlike mathematical axioms, will prove a better foundation for human knowledge than the vague concept of something inscrutable.

If agnosticism means that absolute knowledge is impossible, we heartily concur. But we must add that absolute knowledge, like everything absolute, does not and can not exist. To speak of absolute knowledge shows a radical misconception of the nature of knowledge. Knowledge is always relative. Subjectively, knowledge is produced through feeling, and through the more complicated, higher evolved form of feeling, consciousness. Objectively, it is possible through the law of cause and effect. Surrounding objects affect our senses; the effects are perceived by our senses, and form the substance of cognition.

It is true that our senses are not subtle enough to perceive all manifestations of reality. We have, for instance, no sense for perceiving the chemical rays of light. But the photographer's sensitive plate is more sensitive than our eye, and will give us satisfactory information on the subject. Thus we have indirect means of ascertaining what is inaccessible to our senses and what at first sight might appear beyond the ken of the human mind. "*Nit hominibus arduum est!*" And we must with Goethe hold firm to the belief that what appears incomprehensible to man is comprehensible.

There is but one objection possible to Goethe's proposition which has been made repeatedly, viz., that we never shall be able to find out the cause of existence itself. This objection falls, if we consider that existence (the existence of the world, of reality in general,) is not a cognition or a truth which can be explained and understood. Existence is a fact. And a fact can not be proven by logical argument; a fact must be stated; it must be stated by experience; and if it happens to be beyond the horizon of our personal experience, it must be established by the evidence of witnesses. The existence of reality is a fact self-evident to every existing creature; and if we consider existence as the manifest and knowable effect of a latent unknowable cause we make a wrong application of the causal law.

Reality is what the German calls *Wirklichkeit*, which means effectiveness or the manifestation of causal effects. The operation of natural phenomena is an uninterrupted chain of cause and effect. Anything that manifests its existence by working effects is not unknowable, for cognition traces the effects to

their causes. Cognition shows how in some process or phenomenon, by a certain change (viz. the cause), some new state (viz. the effect) has and must have resulted from a prior state. Reality, being such *Wirklichkeit* or manifestation of effects, a working of effects, is in itself knowability.

Science teaches that the world is a *cosmos*, which means order. If nature were unknowable, it would be no cosmos but disorder. Order and regularity, law and harmony, are in their very nature cognizable. For cognition is the discovery of order, of law, of regularity.

Suppose we have a problem which is insolvable not by our inability to solve it but insolvable in itself. What would we call a problem insolvable in itself? We should say it is no problem, it is falsely stated, it is wrong in its principle, or even it is unmitigated nonsense. And must the problems of Nature really be considered as such mysterious, inscrutable, insolvable, unknowable puzzles? Certainly agnosticism must be mistaken. The world is not an insolvable problem. Like everything that has sense and meaning, it can be investigated and understood. Therefore, we should cease to worship the unknown; we should cease to look with awe and reverence upon unknowabilities. The Nature of an unknowability is neither divine nor profound, and the term unknowable is applicable only to things that have neither rhyme nor reason.

It is strange that both parties, Mr. Field and Mr. Gladstone, as well as Col. Ingersoll, in spite of their avowed agnosticism pronounce very definite although contrary statements about the unknowable, and they approvingly call to each others minds their confession of ignorance. Through this inconsistency of their agnostic with their religious views, must not one agnostic statement destroy the other, and must not agnosticism consequently disappear? In the interest of human progress it is devoutly to be wished for.

But what will be the result not so much of this discussion as of the conflict of two diametrically opposed views? Will one view entirely destroy and outlive the other, or will they really be merged into one as has happened so often in the development of human ideas? The latter is most probable. When the errors of the two parties are recognized, it will be apparent that the truths of both views are not contradictory.

The fundamental truth of religion will not be swept away, it will be purified; and as one great medium by which this purification of religion is to be performed, we name Col. Rob. Ingersoll, the truth loving blasphemer, the undaunted scoffer of what he believes to be superstition.

Mr. Field says: "You are waging a hopeless



war—a war in which you are certain only of defeat. The Christian religion began to be nearly two thousand years before you and I were born, and it will live two thousand years after we are dead." Christianity surely has existed these two thousand years, but Mr. Field is rightly reminded by his opponent, that the Christianity of to-day is not the Christianity of the middle ages, when witches were burned in *majorem Dei gloriam*. The Christian God of to-day is another God than he whom Peter of Amiens preached in the barbaric times of the sanguinary crusades. And the old Jahveh of the Hebrew is again quite a different character from the transcendental Deity, the soft-hearted philanthropic God of modern Deism—the Deism of the eighteenth century. The old Jahveh is a man with nerve and fibre. He demands obedience and punishes trespassers with strictest justice, for he is, more than Jupiter, Zeus, and Wodan, a God of consequences.

Col. Ingersoll is not yet free from old prejudices against Jehovah. Col. Ingersoll seems to feel that Jupiter is harmless. There is no danger in praising him. But his judgment is not impartial when he speaks of a God who still continues to be a power in many minds. Most of the liberal Jewish Rabbies are in this respect further advanced than Col. Ingersoll. However, Col. Ingersoll is not to be blamed for his prejudice, but those Christians whose motto is *credimus quia absurdum*.

Religion and Christianity will not remain what they have been. A new religion will be born, which must contain all that is true and good in the old religions. Whether, in the development of this new religion, the Unitarians or the Universalists or Episcopalians or the Societies for Ethical Culture or the Free Religions Association or any other church or sect will take the lead, remains to be seen. It is certain, however, that even the narrowest congregations will broaden more and more under the influence of modern science and philosophy.

There is an old Scandinavian saga of a northern hero, to whose soul we are informed were added the souls of those he had conquered. He acquired all the virtues, the strength, and the ability of the enemies whom he had slain. There is a truth in the meaning of this saga. Opponents who fight with one another, adapt much from each other, and it is certain that if, in the Ingersoll-Field discussion, agnosticism should conquer, it would by its very victory adapt the fundamental truths of religion. If, however, the religious party should get the best of it in this struggle, it would necessarily broaden and admit the radicalism of free inquiry. There is no standstill in the development of humanity; not only science, but also religion move onward on the path of progress, and he who knows the

signs of the time, can easily point out the direction of our religious evolution.

In summing up our opinion in this case, we must repeat what we stated in the introductory remarks of the present discussion. Humanity forms a great unity, and the development of human ideas constitutes one great and uninterrupted wave. In the religious evolution of mankind, the negative standpoint of agnosticism as represented by Mr. Ingersoll is, in the interest of religion, very important and beneficial. It represents the *antithesis* to the theological *thesis*.

Agnosticism, being a mere negative view, will not stand; it will die on the very same day that its enemy expires. And the *synthesis* will produce the religion of Monism—a religion purified by criticism from pagan supernaturalism and from the monstrosities of dualism, a religion which is in accordance with science, which is the natural and true basis of ethics—not the cloister ethics of the Middle Ages, but the ethics of practical life. This religion will teach man how to keep in harmony with the conditions of his existence. This religion will elevate man, ennoble his aims, and beautify his life.

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## CORRESPONDENCE.

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### GOETHE'S "THRILL OF AWE."

In the April number of the *Nineteenth Century* Matthew Arnold, while descanting upon the dearth of "provision in American civilization for the sense of beauty," introduces a line and a sentiment from Goethe which has occasioned much comment. The passage in which Mr. Arnold fits the sentiment of the German poet to the purposes of his own criticism reads as follows:

"As to distinction, and the interest which human nature seeks from enjoying the effect made upon it by what is elevated, the case is much the same [*i. e.*, as to beauty and the provision for the sense of beauty.—Ed]. There is very little to create such an effect, very much to thwart it. Goethe says somewhere that 'the thrill of awe is the best thing humanity has:'

*\* Das Schandern ist der Menschheit bestes Theil.\**

"But if there be a discipline in which the Americans are wanting, it is the discipline of awe and respect. An austere and intense religion imposed on their Puritan founders the discipline of respect; but this religion is dying out."

The above citation, from the prominence given it, has been taken by some as revealing a leading tendency of Goethe's character and as affording a test whereby to judge the great German poet. Though Goethe had yielded to the feeling of being overawed, it was remarked by some critics of Mr. Arnold that they would not succumb to this weakness and that they saw no nec-

\*The translation of the above line with context is given respectively by Bayard Taylor and by Anster as follows:

"Notless in terror lies no good for me;  
The chill of dread is man's best quality  
Though from the feeling off the world may fend us  
Deeply we feel, once smitten, the Tremendous."

"Think not in terror that I place my weal  
'Tis man's, 'tis man's to shudder and to feel  
The Human in us, though the world disown  
And mock at feeling, seized and startled thus,  
In on itself by strong revulsion thrown,  
Thrills at the Vast—the Awful—the Unknown."



essity of "thrilling with awe" for old institutions and legendary traditions.

The passage quoted is none of Goethe's best known lines and as the well-balanced mind of Goethe never knew any feeling of being overawed, as he could not so easily be imposed upon by authority or thrilled with reverence, we could not but help thinking that the context would set the word *Schaudern* in another light. So we wrote to our American Goethe scholar, Prof. Calvin Thomas, at the University of Michigan, Ann Arbor, asking where the quotation was to be found and received the following answer:

Dr. PAUL CARUS, Chicago. Dear Sir:—The words of Goethe (that you refer to occur in the second part of *Faust*, first act, line 1660:

"Doch im Erstarren such' ich nicht mein Heil,  
Das Schaudern ist der Menschheit bestes Theil."

This feeling, I should say, was very familiar to Goethe. He was acquainted with it and recognized its importance. Nevertheless, his *normal*, *habitual* way of looking at things was rather the inquisitive and scientific, than the emotional and reverential. Or, perhaps, we should rather say, it was a peculiar blending of the scientific with the emotional.

Take for example that fine saying of Faust (Part II, Act 4, line 57):

"Gebirgsmasse bleibt mir edel-stamm,  
Ich frage nicht woher und nicht warum."

Goethe certainly could and often did feel in this way. But he was also an industrious, practical geologist; wherever he went, he was always pounding at the rocks and bagging mineralogical specimens. As a matter of fact, too, he did take the deepest interest in the "Woher" and the "Warum" of mountain-masses. The real, characteristic "*Anschauungsweise*" of Goethe might, I think, be put in this way: "Zwar bist du mir, wie du bist, ein grosser, wunderbares Geheimnis, aber ich möchte trotzdem etwas von deiner Geschichte wissen. Es wurmt mich, dich genetisch zu erklären." †

Of interest in this connection is Goethe's saying: "Nur Erstarren und Bewunderung führen zu der Heiligung der Kunst." ‡ Compare also the long conversation upon *Ehrfurcht* in the first chapter of the second book of Meister's *Wandernjahre*—a disquisition upon which Thomas Carlyle comments with particular enthusiasm in his "Address delivered to the Students of the University of Edinburgh, April 2, 1866." (The address is printed in Carlyle's works under the title: "On the choice of Books").

I beg pardon for this professorial "*Citatenuth*,"

Respectfully, yours

CALVIN THOMAS.

Faust had to go to the Mothers to invoke the shadow of Helena; and we know that Goethe intended to make the word "Mothers" awe-inspiring and impressive. Faust is thrilled with awe at hearing the word. But it is not respect for antiquity that affects Faust; it is a new and great task and a difficult enterprise, fraught with danger that stirs his mind. No feeling of reverence pervades his soul; it is the transport of excitement that, with the full consciousness of the enormous risk, arouses all his powers to superhuman deeds. As the context shows, the word *Schaudern* does not mean the feeling of being overawed; it is used in opposition to *Erstarren*, to "being overawed and petrified with fear." It means the thrill of awe at the recognition of danger and at the same time the courage to plunge into it.

The other passages to which Prof. Thomas refers in his letter,

\* To me but grandeur mute in mountain-peaks doth lie;

I ask not whence nor seek the reason why.

† To me, indeed, thou art as thou art, a great and wonderful mystery; yet I would nevertheless know something of thy history. I'm goaded to unfold thy genesis.

‡ Wonder and admiration alone lead into the sanctuary of art.

corroborate this interpretation of the word *Schaudern* as here used by Goethe.

In fine we may relate as certain that Goethe's line: *Das Schaudern ist der Menschheit bestes Theil* means about the contrary in every respect to the sense in which it was quoted. It does not mean reverence for the past but the excitement of the "to do and dare" at the approach of danger. It does not describe a state of being overpowered with feeling, but of controlling one's feeling and making ready for action, no worship of antique tradition, no wonder at and admiration of, no bowing to authority, but the courageous mastery of the unwonted, the perilous and the apparently impossible.

## THE RELIGION OF THE FRIEND.

To the Editor of THE OPEN COURT:

The religion of the Friend is so greatly differentiated from Religion as generally understood, that Isaac Pennington, a distinguished Friend, two hundred years ago declared: "Our religion stands in the opposite of yours." And I thought I would explain a little to the readers of THE OPEN COURT of what are called "Friends principles."

In the first place when we meet together for worship, we meet in silence—that the phenomenal man may be still and silent before the Eternal; thus we recognize the Socratic as well as the Pauline doctrine: "That the things of man know no man but by the Spirit of man that is in him; and so the things of God know no man but by the spirit of God." Recognizing herein also with Spencer the difference between what he calls "the religious consciousness and the common consciousness." The common (phenomenal) affairs of life we seek to lay aside for the time being, knowing that spiritual things are correlate with spiritual things, and that we can worship God in spirit and truth only as we receive ability directly and immediately from Him so to do. And likewise also in the Ministry, we hold that that which gathers to God proceeds alone from Him! The Ministry with us is *free*—"without money and without price," and without distinction of sex—"neither male or female in Christ!" The Bible, we view as a history of man's conception of his Creator; and not as a history of His dealings with His creature man! The truths of the Scriptures, "either on Christian, or on Heathen ground," we estimate highly, holding with Paul that "all Scriptures given by the inspiration of God are profitable, that the man of God may be thoroughly furnished unto good works." And William Penn herein was the first of his time to quote from distinguished Heathen writers as correlate with Christian thought.

We hold to the universality of Divine Illumination, and that "Christ is the head of every man and first born of every creature." And we distinguish, as Isaac Pennington also did, between the "outward garment" (the man Jesus) and the heavenly anointing; holding with the apostle John: "Ye have all received an anointing (Christ), and need not that any man teach you, but as this self-same anointing teach you which is truth and no lie."

We do not put the man Jesus upon the pedestal of some overthrown heathen-divinity, but esteem him, as did the Apostles likewise, as "our Elder Brother." And this was a very common mode of expression concerning him amongst our early Friends; as he himself said, as we read, "Whoso doeth the will of God the same is my brother, my sister, and my mother."

We bear an open testimony against all intemperance; neither excess nor deficiency in anything; and Friends were amongst the first to testify against the evils of their time and day.

We can also believe in Monism as the highest phase and plane of human thought—*Oneness*—"That they may be one, even as we are one, I in Thee, Thou in me, that they may be one in us," as we read in the Similitude for the fourth gospel he holds as such, "the Spiritual Gospel," as our early friends termed it. We hold



that we can become one with God as Jesus was, being the same in substance, or inner "likeness," we can assimilate with Him—be one in harmony and purpose and thus experience the at-one-ment!

This is in a few words the faith of the Friend, and it does not take many words to tell of "the one thing needful." And herein I would inquire of the readers of *THE OPEN COURT* whether there is any reason why they cannot unite with us in our esoteric association. Huxley has said that "the Religion of the future is to be of the silent sort." Pythagoras taught the same truth 3000 years ago, and it remains the same "one thing" in substance to-day.

DAVID NEWPORT.

ABINGTON, Pa.

## BOOK REVIEWS.

DEGENERESCENCE ET CRIMINALITE. Essai Physiologique. Par Ch. Féré. Paris: 1888. Félix Alcan.

LA CRIMINOLOGIE. Etude sur La Nature du Crime et La Théorie de la Pénalité. Par R. Garofalo. Paris: 1888. Félix Alcan.

The results of modern scientific research have long since demonstrated the flagrant inconsistency which exists between the inherited notions of penalty and the obvious interests of society. The theories of penal justice hitherto accepted have emanated from a false conception of the true relation between criminal and State, and from the days of Ramses II. to the Prison Reports and revisions of Criminal Codes in the States of the Union, the history of criminal jurisprudence has ever been marked by this patent antagonism between the principles of juridical logic and the welfare of political communities. It accorded perfectly with the theocracy of Egypt to substitute the notion of a punitive divinity for the idea of a sovereign punitive power in the State. Yet this false notion of divine justice has inherited in and perverted every criminal code and every known expression of penal legislation. The pacification of a Deity has ever been the criterion accepted in imposing a sanction upon criminal trespasses against society. In other departments the jurat consciousness of antiquity found accurate and consistent expression, but their theories of penalty were marked by crudity and pervaded by a perverted sentiment. The principles of civil and administrative law had attained in imperial Rome a comprehensiveness and a logical consistency never since surpassed, but the most enthusiastic of juriconsults would never claim for the criminal jurisprudence of the great empire a title of the perfection reached in the kindred departments of legal science. These principles became the heritage of the Middle Ages; and far from noting an advance, we mark a relative retrogression in the theoretical analysis and practical application of penal notions—due allowance being made for the defects of political structure and the immaturity of mediæval society. The Middle Ages were essentially theocratical, and in the administration of criminal justice theocracy has invariably been characterized by excessive atrocity. To those people the fear of the Lord had become the beginning of wisdom in all its practical significance, and they did not hesitate to make infinite sacrifices to a deity who united in himself so many attributes of infinitude. Even later, when the transition from ecclesiastical to secular methods was being effected in the domain of politics, when the theoretical discussion of administrative problems came to be based upon the admitted premises of general utility, the principles of criminal justice were still made to conform to the postulate of powers delegated from a retributive God. The punitive function of the State appeared to have been restricted to the pacification of a mystical divinity rather than limited to the protection of society and dominated by the test of general utility.

This false conception of a fore-ordination of punishment, with

its consequent unreasonable and disproportionate imposition of penal sanctions created in the eighteenth century in parts of Europe a revulsion of public interest in favor of the criminal. But the sympathy thus manifested was directed more towards the victims of justice than towards the victims of crime. The tendency bid fair to abolish punishment rather than lead to the abolition of atrocious sanctions and the reformation of the sociological conditions which produced crime. Sentiment and pity have, in their turn, given place to the researches of Science which seeks to elucidate the true nature of crime, and thereby to accord it its true position as an object of justice. Anthropology and psychology regard the criminal as an anomaly or type of the *genus homo*. In England Maudsley, in France Despine, in Italy Lombroso, have principally studied to perfect this scientific tendency of criminology. And now: are the prevailing theories of criminal legislation, are the theories of penalty now dominant in juridical science to conform to the verified results of scientific research? This is the question which we find discussed in the two books before us.

M. Ch. Féré, attending physician at the Bicêtre, an asylum and house of correction near Paris, has enjoyed especial advantages for the study of criminal physiology and he has incorporated the results of his experience and the ideas suggested by his observations in a little book of 178 pages entitled: "Degeneracy and Criminality, a Physiological Essay." It is prefaced by a chapter upon "The Physiological Conditions of the Emotions," which appeared in the *Revue Philosophique* of December, 1887, and which serves as a fitting basis for the discussions following. The chapters upon "Criminal Heredity" and "The Anatomical and Physiological Character of Criminals" are of prominent interest. The style is clear and the treatment is marked throughout by that lucidity of method which has so much enhanced the worth of French contributions to Modern Psychology.

The larger work upon Criminology by R. Garofalo, Fellow of the University of Naples and Deputy Attorney General for the same district, is a French translation of a more exhaustive treatment of the subject, written from the standpoint of the jurist and law-maker. Mr. Garofalo's literary activity in this field of inquiry, including many critical essays upon the same subject and a larger treatise entitled *Criterio positivo della penali*, has in part supplemented the work of Lombroso and Ferri, and aroused in Italy the attention of all publicists, whether in favorable or adverse criticism, upon this important subject. The book is encyclopædic in character, and forms a comprehensive introduction to the study of criminology in all its aspects.

The beautiful month of June is fitly ushered in by the *Art Amateur* with a gorgeous bunch of roses. They are strong in color and forcibly drawn, but yet we miss in them everything which makes the rose the dearest of all flowers, the ever fitting expression of love and beauty. It is a mistake to paint the stiff products of the gardener's art as conventional and formal as the work of the professional designer, instead of the natural flower in its freedom and grace. We like better the puppies lightly sketched by Miss Elizabeth Strong, from her painting in the Paris *Salon*. A very full account is given of this *salon* exhibition, which is said to be a good average one. The list of artists contain many well known names, which it is pleasant to meet again, and some new ones, whose success will be welcome to many friends. The different estimates of Mr. Sargent's work by two of the critics in this number offer us food for thought, and may encourage timid amateurs to express the judgment of their own eyes in regard even to fashionable pictures, for they will be sure to find some to agree with them whatever view of an artist they may take. We should certainly venture a very decided opinion of the black scratches called a "Street in Venice," by this painter. "California Art Gossip"



is the heading of one article. It is a pleasant sign of progress that there is art enough there to gossip about. There appears to be a good school of design in San Francisco, one of whose pupils, Mr. Wins, was wise enough to study the peculiar Chinese life about him, which secured him so good a sale of one of his pictures that he was enabled to study in Europe, and then go to Japan. He is now exhibiting pictures of Japanese subjects. An article on Landscape painting is well illustrated by pleasing sketches. Among the Answers to Correspondents we find this bit of sound advice: "On the whole, we advise you to study in America until, at least, you are thoroughly grounded in drawing, before entering the foreign schools, where, as a recent writer says, 'talent is only mediocrity.' What chance there, then, has ignorance?"

We are glad to see some reproductions of Flaxman's designs. Purity and beauty of line so forgotten in these impressionable days that it is refreshing to see these outlines of the "Birth of Aphrodite" and "Oceanus and the Nereids."

There are also good articles on Decoration and Fancy Work, with suitable illustrations.

#### NOTES.

Carus Sterne has told us, in his essay ending with the last number of *THE OPEN COURT*, what a wonderful mechanism the animal soul is, and how intimate are its relations to the human soul. Gustav Freytag introduces the same subject in the *Lost Manuscript*, which is published in this number. Prof. Raschke says: "The same vital power which we observe in ourselves is fundamentally at work with them, only limited by a less complicated, and, on the whole, less complete organization." And "the egg, too, has its story." The egg contains in its protoplasm certain forms in which are stored the memories of animal life acquired by the many millions of its feathered ancestors. As to the difference of the animal soul and the human soul, we refer our readers to the editorial of No. 33, *Monism and Philology*, in which the problem of the Origin of Reason is discussed. The origin of reason, Max Müller says, must be looked for in language, "Man thinks because he speaks." The human soul has the power of abstract thought, because man gives utterance to his sentiments in words. The word is the origin of spirit life, with all its wonderful achievements.

*THE OPEN COURT* is much more radical than Agnosticism. Onesided radicalism may appear injurious to, but consistent radicalism will not be destructive of, religion; it will purify it, it will benefit it—indeed, the spirit of radicalism, that of a fearless love of truth, is truly, religious.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XVII.—Continued.

One evening, Professor Raschke having looked in late, showed himself disposed to pass the evening with them, and Felix sent the servant to the Professor's wife, to set her mind at rest as to the absence of her husband. As Raschke, among all her husband's colleagues, was Ilse's favorite, she took pains to order something that would please him. This order doomed to death some chickens that shortly before had been brought in alive. The gentlemen were sitting in Ilse's room when a dreadful scream and clamor issued from the kitchen, and the cook, pale as death, opened the door and appealed to her mistress. It appeared that the girl's heart failed her in attempting to kill the fowls,

and as Gabriel, who had hitherto performed all such necessary slaughter, was absent, she did not know what to do, so Ilse herself had to perform the indispensable act. When she returned, Felix unfortunately asked why she had left the room, and Ilse told him what had occurred.

The chickens were placed upon table and did the cook no discredit. Ilse carved and served them, but her husband pushed back his plate, whilst Raschke, out of politeness, picked at the breast, but forbore to eat a morsel. Ilse regarded the two gentlemen with astonishment.

"You do not eat anything, Professor?" she at last said to her guest, anxiously.

"It is only a morbid weakness," replied Raschke, "and it's very foolish indeed, but the screams of the poor bird still linger in my ear."

"And in yours, too, Felix?" asked Ilse, with increasing wonderment.

"Yes," rejoined he. "Is it not possible to have these things done quietly?"

"Not always," answered Ilse, mortified, "when the house is so small, and the kitchen so near." She rang and ordered the ill-fated dish to be taken away. "Those who can't bear things to be killed should eat no meat."

"You are quite right," replied Raschke, submissively, "and our sensitiveness has but little justification. We find the preparations unpleasant, yet as a rule we are well satisfied with the result. But when one is accustomed to observe animal life with sympathy, he is necessarily shocked at the sudden termination of an organism for his own selfish purposes, when it is done in a way to which he is not accustomed. For the whole life of an animal is full of mystery to us. The same vital power which we observe in ourselves, is fundamentally at work with them, only limited by a less complicated, and, on the whole, less complete organization."

"How can you compare their souls with that of man's?" asked Ilse; "the irrational with the rational; the transitory with the eternal?"

"As to irrational, my dear lady, it is a word to which in this case one does not attach a very clear meaning. What the difference may be between man and beast is difficult to decide, and on this subject a little modesty becomes us. We know but little of animals, even of those who pass their lives among us. And I confess that the attempt to fathom this unknown problem fills me with awe and reverence, which occasionally rises into fear. I cannot bear that any one who belongs to me should grow fond of an animal. This arises from a weakness of feeling which I own is sentimental. But the influence of the human mind on animals has always seemed to me wonderful and

\* Translation copyrighted.



weird; phases of their life are developed, which in certain directions make them very similar to man. Their affectionate devotion to us has something so touching in it, that we are disposed to bestow much more love on them than is good either for them or us."

"Still an animal remains what it was from the creation," said Ilse; "unchanged in its habits and inclinations. We can train a bird, and make a dog fetch and carry what he would rather eat, but that is only an outward compulsion. If let to themselves, their nature and manners remain unaltered, and what we call culture they lack utterly."

"Even upon that point we are by no means sure," rejoined Raschke. "We do not know but that each race of animals has a history and an evolution which extends from the earliest generation to the present. It is not at all impossible that acquirements and knowledge of the world, so far as they may exist in animals, have acted among them, though in a narrower sphere, just as with men. It is quite an assumption that birds sang just the same way a thousand years ago as they do now. I believe that the wolf and the lynx, in cultivated regions, stand on the same footing in the struggle for life as do the remnants of the red Indians among the whites; whilst those animals that live in comparative peace with man, like sparrows and other small creatures, and bees especially, improve in their mode of work, and in the course of time make progress—progress which we in some cases surmise, but which our science has not yet been able to describe."

"Our forester would quite agree with you in this," said Ilse, quietly; "as he complains bitterly that the bullfinches of our neighborhood have, within his memory, quite deteriorated in their singing, because all the good singers have been caught, and the young birds have no one to teach them."

"Exactly," said Raschke; "among animals of every species there are clever and stupid individuals, and it must follow that to some of them is assigned a definite spiritual mission which extends far beyond their own life. And the experience of an old raven, or the enchanting notes of a melodious nightingale, are not lost on the future generations of their race, but influence them continuously. In this sense we may well speak of culture and continued improvement among animals. But as regards the cooking, I admit that we exhibited our sympathies at the wrong time and place, and I hope you are not angry with us, dear friend."

"It shall all be forgotten now," replied Ilse, "I will give you boiled eggs the next time; they will involve no scruples."

"The egg, too, has its story," answered Raschke;

"but for the present, I may fitly waive discussing this. What has brought me here," addressing Felix, earnestly, "was neither fowls nor eggs, but our colleague, Struvelius. I am seeking forgiveness for him."

Felix drew himself up stiffly. "Has he commissioned you to come?"

"Not exactly; but it is the wish of some of our colleagues. You know that next year we require an energetic Rector. Some of our acquaintance are speaking of you. Struvelius will probably be Deacon, and for this reason we wish to bring you into friendly relations; and still more for the sake of peace at the University. We regret exceedingly to see our classicists at variance."

"What the man has done to me," replied the Professor, proudly, "I can easily forgive, although his mean and underhand conduct has deeply offended me. I feel much more seriously the effect of his foolish work upon himself and our University. What separates me from him is the dishonesty of spirit that has actuated his conduct."

"The expression is too strong," cried Raschke.

"It applies to his behavior exactly," returned the Professor. "When the forgery was pointed out to him, his fear of humiliation was greater than his love of truth, and he lied in order to deceive others—conduct unworthy of a German professor, and I can never forgive it."

"Again you are too severe," replied Raschke; "he has frankly and loyally admitted his error."

"He did so only when Magister Knips and others clearly proved the forgery that had been committed in the manuscript, and so made any further evasion impossible."

"Human feelings are not so easy to analyze as numbers are," rejoined Raschke; "and only he who judges charitably, judges rightly. He struggled with wounded pride perhaps too long, but he gave in at last."

"I tolerate no unknown quantity in the sense of honor of a scientist; the question here was: Black or white? Truth or falsehood?"

"You have, nevertheless," said Ilse, "shown the Magister much greater leniency, and I have seen him with you since, more than once."

"The Magister was less to blame in the matter," her husband replied. "When the question was clearly before him, he employed his acuteness to some purpose."

"He took money for it," said Ilse.

"He is a poor devil, accustomed, as a broker, to take his profits on any exchange of antiquities, and no one would expect in such a transaction that he should act like a gentleman. So far as his oppressed



spirit belongs to science, it is not without a sort of manly pride; and I have the warmest sympathy for a nature of that kind. His life on the whole is a continual martyrdom to the interests of others; and when I employ such a man, I know exactly how far to trust him."

"Do not deceive yourself in that!" cried Raschke.

"I shall take the risk and the responsibility," replied the Professor. "But have done with the Magister—it is not he who is in question. When I compare his offense with that of Struvelius, there is no doubt in my mind as to who has shown the greater deficiency in sense of honor."

"This again is so unjust," cried Raschke, "that I cannot listen to such expressions in the absence of my colleague. It is with deep regret that I miss in you the candor and dispassionate impartiality which I consider to be unreservedly demanded in judging a fellow-professor."

"You yourself told me," replied Felix, more quietly, "that he promised silence to the trader, because the latter had held out the prospect of obtaining other secret parchments. How can you, after such an exhibition of selfishness, find a word to say in his defense?"

"It is true he did so," replied, Raschke, "and therein was his weakness?"

"Therein was his dishonesty," said the Professor, "and that I shall never condone. Whoever thinks otherwise, may shake his hand in approbation of his conduct."

Raschke rose. "If your words mean that he who grasps the hand of Struvelius in pardon for what he has done, has lost in character and self-respect, I reply to you that I am the man, and that this act of mine has never lessened my sense of dignity nor humiliated me in my own eyes. I entertain the highest respect for your pure and manly feelings, which I have ever deemed exemplary; but I must now tell you, that I am not satisfied with you. If this obduracy has come upon you merely because Struvelius has personally offended you, you are violating the standard which we are ever in duty bound to observe in judging our fellow men."

"Let it not be observed then!" exclaimed the Professor. "I recognize no standard of leniency when I have to do with the demands which I make upon the sense of honor and propriety in my personal acquaintances. It affects me deeply that you are opposed to me in this way of thinking; but such as I am, an erring and imperfect mortal, I cannot moderate these claims upon those about me."

"Let me hope then," broke in Raschke, "that it will never be your misfortune to have to confess to others that you have been deceived by an impostor in the very matter wherein your consciousness of self-

reliance has been so strongly aroused. For he who judges others so proudly, would suffer no small affliction in the confession of his own shortsightedness."

"Yes, that would be fearful for me," said Felix, to involve others in error and falsehood against my will. But trust me, to atone for such a wrong I would use all my life and strength. Meanwhile, between that man and me the gulf will remain as dark as ever."

Raschke shoved back his chair. "I must go, then; for our discussion has so excited me that I should make a very unentertaining companion. It is the first time, my dear lady, that I have ever left this house with any feeling of unpleasantness; and it is not my least annoyance, that my untimely advocacy of the existence of souls in poultry made me bristle up my crest against you also."

Ilse regarded the excited countenance of the worthy man with pain, and, in order to soothe him and restore the old friendly relations, she said to him, coaxingly: "But you shall not escape the poor chicken, you'll have to eat it, and I shall take care that your wife gives it to you to-morrow morning for breakfast."

Raschke pressed her hand, and rushed out through the door. The Professor walked up and down the room in agitation, and then stopping before his wife said, abruptly, "Was I in the wrong?"

"I don't know," replied Ilse, hesitating; "but when our friend spoke to you, all my feelings went with him, and I felt that he was right."

"You, too!" said the Professor, moodily. He turned on his heel and went into his study.

Ilse once more sat alone with a heavy heart, and she murmured, "In many things he looks on life very differently from what I do. Towards animals he is kinder, and towards men sometimes harsher than I am. Strive as I may, I shall always be to him an awkward country lass. He was kind to Madam Rollmaus, and will be so towards me; but he will ever have to make allowances for me."

She sprung from her chair with a burning face.

In the meantime Raschke was roving about in the anteroom; there too disorder prevailed. Gabriel had not returned from his distant errand, and the cook had put all the dinner things upon a side-table till his return, and Raschke had to look for his own great-coat. He groped among the clothes and seized a coat and a hat. As to-day he was not as absent-minded as usual, a glance at the rejected meal reminded him of the fact that he had to eat a chicken, as enjoined by Ilse. He, therefore, seized a newspaper which Gabriel had carefully laid out for his master, took the chicken from the dish, wrapped it up in the paper, and deposited it in his pocket, the depth and capacity of which agreeably surprised him. Rushing past the



astonished cook he left the house. On opening the front door he stumbled over something on the threshold, and heard a fearful growl behind him as he hurried down the steps into the open air.

The words of the friend whose house he had just left, still rung in his ear. Werner's whole bearing had been very characteristic, and his nature was a strong one. Strange, that in a moment of anger his face had suddenly assumed a likeness to that of a Danish dog. Here the philosopher's chain of ideas was broken by the sudden recollection of the talk about animal souls.

"It is indeed to be deplored that it is still so difficult to determine the significance of expression as revealing the animal soul. If success attended our efforts here, science too would gain by it. If the expressions and gestures exhibited in moments of passion by man and the higher animals could be compared and collated in every detail, important and interesting inferences might be drawn, both from that which they manifested in common and from that wherein they differed. For, in this way, the true nature and purport of their dramatic actions, and probably new laws governing the same, might be ascertained."

Whilst the philosopher was thus meditating, he felt a repeated tugging at the end of his overcoat. As his wife was accustomed, when he was wrapt in thought, to nudge him gently if he met a friend, he paid no attention, but took off his hat politely to the post on the bridge, and said, "Good evening."

"The common character and origin of mimical expression in man and the higher animals might, perhaps, if fully known, give us glimpses into the great secret of life." Again something pulled him. Raschke mechanically lifted his hat. Another tug. "No more, dear Aurelia, I have taken my hat off." It then occurred to him that it could not be his wife who was pulling so low down at his coat. It must be his little daughter Bertha, who occasionally walked with him, and, just like her mother, would also nudge him gently when he had to bow to any one. "Very well, dear child," said he, as Bertha kept continually pulling at his hind coat pocket, and he put his hand behind him to catch the little teaser. He caught hold of something round and shaggy, and at once felt the sharp edges of teeth in his fingers, which made him turn round with a start. He then saw, by the lamplight, a red, brindled monster, with a great head and bristly hair, and a tuft instead of a tail. It was an awful transformation of wife and daughter, and he stared with amazement at this mysterious being, that stood opposite to him, likewise regarding him in silence.

"A remarkable meeting," cried Raschke. "What art thou, unknown beast—presumably a dog?" Get

away with thee!" The animal slunk back a few paces, and Raschke pursued his inquiry further. "If the facial expression and the gesticulation attendant upon emotion could be thus referred and traced back to original and common forms, the instinctive tendency to appropriate and to adapt what is foreign would undoubtedly result as one of the most universal and effective of laws. It would be instructive from the involuntary actions of men and animals to ascertain that which naturally belonged to each species and that which each had acquired. Get away, dog;—home with you, I say! What is he after, anyway? He is apparently one of Werner's people. The poor brute is possessed of some overpowering idea and will lose his way running about the city!"

In the meantime, Spitehahn's attacks had become more violent, and he at last dropped into a ludicrous march upon his hind legs, while, placing his forefeet on the Professor's back, he buried his nose in the latter's coat-pocket.

Raschke's interest in the thoughts of the dog increased. He stopped by a lamp-post and carefully examined his overcoat. He found that it possessed a cape and long sleeves, which the philosopher had never observed before on his own coat. The matter was now clear: he had thoughtlessly taken the wrong coat, and the honest dog meant to preserve his master's wardrobe, and to make the thief restore it. Raschke was so pleased with the dog's cleverness, that he turned round and spoke coaxingly to Spitehahn, trying to stroke his bristly coat. The dog snapped at his hand. "You are quite right," said Raschke, "in being angry with me. I will show you that I confess I am in the wrong." So he took the coat off, and hung it over his arm. "It is, indeed, much heavier than my own." He marched briskly on in his light coat, and saw with satisfaction that the dog made no more attacks on his skirts. On the other hand, Spitehahn seized the great-coat, and began biting at it, snapping at the Professor's hand and growling furiously.

The Professor got angry with the dog, and as he came to a bench in the Promenade, he laid the coat down on it, in order to deal with the animal in earnest, and drive him home. By this means he got rid of the dog and, what was more, of the coat too; for Spitehahn, jumping up eagerly on the bench with a mighty leap, seized the coat, and kept the Professor at bay. "It is Werner's coat," said the Professor, "and it is Werner's dog, and it would be unjustifiable to beat the poor animal because in his fidelity he has become excited, and it would be also wrong to leave both dog and coat." So he remained with the dog, trying to coax him; the animal, however, took no further notice of the Professor; on the contrary, he devoted himself to the coat, which he



turned over and over again, scraping and gnawing at it. Raschke perceived that the coat would not long stand such treatment. "The dog must be mad," he said to himself, suspiciously, "and I shall have to resort to violence after all towards the poor creature;" and he considered whether it were better to jump up on the bench and drive the mad dog off with a good kick, or to make the unavoidable attack from below. He decided on the latter, and searched about for a stone or stick to arm himself for the encounter. He then looked up at the trees and the dark sky, and could not in the least tell where he was. "Is this witchcraft?" he said to himself, amused. "Pray tell me," addressing a solitary passer-by, "in what part of the town we are; and will you have the goodness to lend me your stick for a moment?"

"These are strange questions," replied the stranger, in a surly tone. "I want my stick myself at this time of night. And who are you, sir, I should like to know?" And he approached the Professor menacingly.

"I am a peaceable man," replied the Professor, "and little inclined to violent courses. But a struggle has commenced between that dog on the bench and me about an overcoat, and I should be extremely obliged to you if you would rescue the coat from the dog. But pray do no more harm to him than is absolutely necessary."

"Is it your coat?" asked the man.

"Unfortunately, I cannot say it is," replied Raschke, conscientiously.

"There is something wrong here," cried the stranger, again looking with suspicion at the Professor.

"Something, indeed," replied Raschke; "the dog is mad, the coat has been changed, and I don't know where we are."

"Close to the Valley Gate, Professor Raschke," answered the voice of Gabriel, who rapidly joined the group. "But, pardon me, how came you here?"

"How opportune," cried Raschke, delighted; "just take charge of the coat and the dog."

With astonishment Gabriel saw his friend Spitehahn, who was now sitting on the coat, quite abashed and chapfallen at the sight of his master. Gabriel drove the dog off, and seized the coat. "It is my own overcoat!" he said.

"Yes, Gabriel," rejoined the Professor, "that was my mistake, and the dog has displayed a wonderful fidelity in guarding it."

"Fidelity!" said Gabriel, indignantly, as he pulled a parcel out of the pocket; "it was greedy selfishness. There must be something to eat in here."

"Ah! I recollect now," cried Raschke; "it is the fowl that's to blame. Give me the parcel, Gabriel; I must eat it myself. And we may now wish one

another good-night in peace, unless you will go with me a little way to show me the road amongst these trees."

"But you can't go in this night air without an overcoat," said the tender-hearted Gabriel. "We are not far from our house, and it would be better for you to return with me to the Professor's."

Raschke paused a while, and laughed. "You are quite right, my good Gabriel: my sudden departure was all wrong, and the soul of an animal has this day given a lesson to a human soul."

"If you mean this dog," replied Gabriel, "it is the first time in his life he has given anybody a lesson. I suppose that he followed you from our door, for I put bones there for him every evening."

"At one time I thought he was quite mad," said the Professor.

"He is a sly one when he chooses," replied Gabriel, with an air of mystery; "but if I were to tell all my experiences with him to this day——"

"Do tell me, Gabriel," cried the Professor, quite excited. "Nothing is so valuable with respect to animals as authentic anecdotes, collected by those who have observed them closely."

"I can vouch for my experience," said Gabriel, with an air of confidence; "and if you really wish to know what he is, I can tell you he is possessed—he is a devil—he's a depraved brute—and bears a grudge against the whole human race!"

"Hum!—is that so?" murmured the philosopher. "I believe it is much easier to look into the heart of a Professor than that of a dog."

Spitehahn crept along quietly but depressed, with his tail between his legs, listening to the praise bestowed on him, whilst Raschke, accompanied by Gabriel, returned through the park to the house. Gabriel flung open the parlor door, and announced "Professor Raschke."

Ilse stretched out both hands, "Welcome—welcome, dear Professor!" and led him in to her husband's study.

"Here I am again," said Raschke, in a cheerful tone, "after an adventure like a fairy tale. I have been brought back by two animals who have shown me the right path—a roast fowl and a perverted dog."

Felix sprang to his feet, the two friends shook hands cordially, and, after all misunderstanding, the evening passed off most pleasantly.

When Raschke at length withdrew, Gabriel said sorrowfully to his mistress: "It was the new coat; the chicken and the dog have ruined it beyond all recognition."

(To be continued.)



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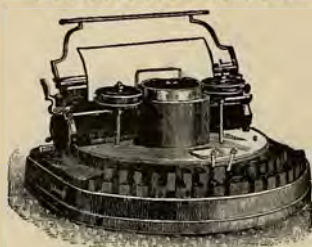
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"People do no longer believe in witches nor in ghosts. But the belief in disembodied thought will die very hard. \* \* \*

"As little as we possess a thing called hunger because we are hungry, do we possess a thing called reason because we are rational. Why, then, should we write it with a Capital R, and make a goddess of Reason and worship her, as she was actually worshipped in the streets of Paris? \* \* \*

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## ETHICS AND PUBLIC LIFE.

BY W. M. SALTER.

It must be admitted that the public interest is sadly neglected at the present time. As a rule the best men do not enter public life. Politics is losing much of its nobler significance; it tends to become chiefly a strife for office. Our public servants appear often to be in office not so much to serve the public, as to serve themselves or some interest that put them there! It is scarcely exaggerating to say that the very conception of public life is becoming dim and uncertain. It is thought but natural that a representative in Congress or an Alderman in the City Council should do everything possible for the interests of his constituents, that this is his main reason for being there, that as many privileges or favors as he gets for his constituency, he is so much the better public officer. In other words, the idea is not that he should take a contribution and be himself a contribution to the councils of the nation or the municipality—giving his time, his thought and his energy to questions relating to the public good; but that he should go to Washington or the City Hall to get a contribution out of the storehouse of public funds and public powers, to meet the needs or gratify the caprices of a more or less narrow circle of individuals. More simply still, the idea is not that the people through the officers whom they choose shall help to support the government, but that the government through the various officers pulling and nagging at it shall help to support the people.

It is but a step further in this line when public officers come to view their chief obligations as being to those who helped elect them—to those who got the nomination for them, who managed their campaign and stood by them through thick and thin. When men owe their offices not so much to the spontaneous good will of the public, as to those who pulled the wires for their nomination and election, even the interests of the ward or the district may not have the first place in their affection, but rather the wishes and expectations and preferences of the Colonels and Captains, and Toms and Harrys, who worked the machine. Politics appears to be often a bargain, a trade—in which a candidate says, if you will do this for me, I will do that for you, and a man's henchmen or work-

ers feel that they have a right to their reward, in money or minor offices.

It is but a step lower down still, when a public officer's chief obligations come to be to some set of men, some corporation or interest that have really placed him in his seat. All these ways of regarding public office are of a piece. If a man's first obligations are to those who elect him, there is no hard and fast line between his ward or district, the workers of his machine or the interest that may be the soul of the machine. If the business of the legislator is to champion interests, why should it be incredible that in Congress most of the great railroad companies, the oil monopolies and the lumber companies should have their representatives? If so, is it surprising that our State legislatures—as is stated on excellent authority—should be the most corrupt political bodies in the world? Yes, if men in office are there to look after interests, why should they not look after their own interests, and why should boddlers in county-boards or in common councils surprise us? The danger lies in intruding interests into public affairs at all.

No one can quarrel with interests in their own place and under due restraint. It is right that an individual should look after his interests; but it is not right that the government should be made subservient to them; the government can only be made subservient to the interests of all. It might as well be plainly stated that to the extent we allow interests to control the government, we give an argument to the anarchist. The whole anarchistic position is this, that government is a tool which the rich and powerful make use of to make themselves securer in their power. It is cheaper, so the argument goes, to rule by laws than by personal prowess and to have the arm of the public defend you rather than to have to defend yourself; and the rich and powerful always rule. Now every step that individual or corporate interests take in lodging themselves in the government—I do not mean, of course, to the end of serving the public, but to the end of making the public serve them—every favor they win, every immunity, every privilege, every special legislation they secure, whether the form of a tariff or any other form, every man they send to a legislature and every man they influence there, every vote they buy and every juror they bribe, means not



only public injury and the demoralization of our politics, it means anarchy. There is nothing the man, to whom anarchy is a foregone conclusion, hails with more joy than just such unscrupulousness; it is but new proof for his position. By a strange irony the men who most hate anarchy, give to it its best arguments. Our country is probably not in danger of war; we have no external foe. Our danger is more insidious; it is not in wealth—no, the more wealth the better, the greater the possibilities of a high and noble civilization; it is in unscrupulous wealth, it is in wealth entrenching itself, buttressing itself behind government, it is in government by wealth,—that way madness, that way anarchy lies.

How shall we ward off that danger? How shall we save our country—a country dear to every soldier who fought for her, dear to us all who but think of her, a country to whom Lowell sings:

"What were our lives without thee?  
What all our lives to save thee?  
We reck not what we gave thee;  
We will not dare to doubt thee,  
But ask whatever else, and we will dare!"

We have to go down deep in this matter, we have to have nothing less than a new thought of the meaning of public life. No surface changes, no mending of our machinery will avail without this. Public life must mean to our minds, whatever it is now in reality, life devoted to public ends, dedicated to the public good. The true antithesis, the profoundly moral antithesis, is between living to one's own ends and living to the ends of the whole of which we are a part. Thank heaven, in every sphere of life one may be guided by public motives. But in private life, in private business we are not accustomed to expect it; the very idea of civic or political life, however, implies the larger reference.

He who marries, marries for love—or it is not a true marriage. He who becomes an artist devotes himself to the beautiful, or he is not a true artist. He who enters public life ceases to be dominated by private or partial interests, else he is not a true public servant. I do not deny, indeed, that an alderman should see that his own ward is not overlooked or slighted in schemes of general improvement, that it is his special duty to see to this as it is of other aldermen to see that their wards are not overlooked or slighted; but I do deny that it is any alderman's duty or right to seek for special privileges or advantages for his ward, I deny that he should seek for anything more than justice—and over and above and even in contradiction to local interests his care should be, to speak of our own case, for the good of the City of Chicago. So with any legislative district, with any commonwealth represented in the National Senate. In our State legislatures, it is the interests of the State

rather than those of a district, which its representative should serve. In the supreme legislative bodies of the land, it is the national interest that should dominate over all others. A true public life is a school of morality—for it takes one of oneself and links one to something larger. It makes no difference what the subject of legislative action may be—it may be streets and alleys, it may be garbage and sewage, or it may be schools, or courts of justice or a system of finance—all are to be looked at from an impersonal point of view, from the standpoint of the good of all.

A true public life may be the object of the purest as well as the loftiest ambition; it stands next to religion in dignity and honor—it is infinitely superior to all that religion which is but selfishness aiming at another world instead of this.

How can such a view of public life prevail? Only through public opinion. Let us try to send a fresh current of ideas through public opinion, let us disturb its stagnant waters and work to season and transform it,—only through a nobler thought of public life can our nation be regenerated.

In the next place, let us surround public office with more respect, let us give it more substantial honor. I do not mean that we shall not hold public servants to account, that we shall not unsparingly point out their short-comings, but only that our thought and speech should be tempered by a remembrance of the exalted station which they fill. It is surely enough to admit the facts in any case; but let us not exaggerate them, let us not take a ghoulish delight in parading them, let us speak in sorrow or in anger of them, but never lightly or in jest. A man will not coarsely upbraid his father, even though he were a drunkard or worse; the consciousness that he is his father acts as a curb upon his tongue. Plato says, we honor God when we honor the darkened and disfigured image of him; Geo. Eliot says, the mother's yearning feels the presence of the cherished child even in the base degraded man. Surely, we can in this spirit honor the dignity that for the moment attaches to the public servant, though we can not, the man himself—honor it enough to keep us from speaking contemptuously of him and to incline us, like the Sons of Noah in Hebrew legend, to cover his shame rather than to noise it abroad.

Matthew Arnold says that if there is a discipline in which Americans are wanting, it is the discipline of awe and respect. I am afraid he is more than half right. How familiar we are in speaking even of good men, men worthy of reverence! It is as if we were bound to have nothing which we had to acknowledge to be above us. How ready we are to suspect people, to throw out insinuations about them! I am afraid, in many cases, it is because it seems knowing and smart



Now there are public officers who are actuated by public aims, and perhaps there would be more if we had a better thought of them. There are men, in the National Senate, of Roman virtue, men who have never sought re-election, who have never gone into the ignoble traffic in offices, men who have broken with their party when the party went wrong. There are such men and they are a hint that all might be—and it is wiser and nobler to go on the supposition that they are such, until the contrary is plainly proved to us. And is it not a shame that a man should adorn one of the most dignified public offices in our land, and yet die able to leave scarcely any provision for his family? Even the Judges in New York City receive a half and two-thirds as much again as the Chief Justice of the United States. Do we honor an office when we provide so unworthily for the incumbent of it? And is this not true of public offices generally? Do we not hear time and again of those who have to retire to private life to earn enough to live upon with decency? I do not refer of course to those of whom we have a fair sample in a late Chicago alderman, who naively remarked that he was criticized when he went into the council for being too poor, and again, when he came out for being too rich—a most inconsistent criticism, he thought; I refer to those who regard public office as a public trust. Our present system of mean rewards to public servants tends to one of two things: either that rich men alone shall take public office, or that men who are too poor shall take it with the expectation of using their office for purposes of gain. I do not mean that public office should be as remunerative as private business; I only ask that it should not be a trial to good men to assume public office, that a manner of life commensurate with the dignity of the office be possible to them.

Thirdly, we should encourage the growth of ideas among those with political aspirations. There could hardly be a more effective way of preventing any expansion of thought among our public men than the present system of nominations and elections. We all believe that democratic institutions are the best, because they give men more freedom to rise and allow those with the best talents to take the lead in affairs. But there may be a tyranny of a majority as well as of an individual or a class, there may be oppressive restraint from a party as well as from prescriptive laws. It can hardly be denied that our parties, as at present inspired or rather uninspired, are breeders of mediocrity. They discourage all independence of views. They are without ideas themselves and have no hungering after them. As has been said time and again, the chief hunger is after offices. Read all the political news and discussions in our newspapers for the last few weeks—and there is scarcely the glimmering of

an idea in it all, unless it be one-quarter of an idea about the tariff; it is all about offices and about men—the Democrats, if I may be pardoned such familiar speech, are hardly so anxious about tariff-reform as they are to keep in office, and the Republicans are hardly so anxious about protecting American labor, as they are to acquire office. We want ideas in public life, we ought to have freer ways for getting men who represent ideas into office. Now, a man can hardly be elected, even to a place in a city council, unless he is endorsed by one or the other party-machine. It may be he is far better in character as well as ideas than the machine; we ought to be able to elect him without it. If there is one thing more absurd, more silly than another, it is to elect a man, either because he is a Democrat or a Republican, to a municipal office; yet the machine has as much life in local politics as in national politics, where alone it ever had a reason for being, and sometimes the rival machines give us nominations each worse than the other. When will Republicans and Democrats dare to claim their souls as their own? Not until they do so, shall we have a pure and honest and capable municipal service. The combined efforts of both machines have only served to give us in Chicago a worse council this year than we had last—a council, the majority of whom have refused to remove the dangerous influences of the saloon from the neighborhood of our public schools. Men of character and convictions, how can we get them into the legislative chambers of City, State and Nation? In the main, no doubt, only as there arises a freer public sentiment. But three things might be done to help along. The first is, to limit the amount by law which a candidate can pay for his campaign expenses. The party-machine is on the look-out for candidates who will pay well. This goes a long way towards deciding the availability of candidates. It is a shame that candidates should be expected to pay at all. If the amount were at least strictly limited, the machine would lose one reason for bringing forward incompetent men. Secondly, the expense of printing and distributing ballots on election day might be made a public expense; and any one who was asked by a certain number of citizens to stand as a candidate might have as good right to have ballots printed and distributed in his favor as others receiving the regular party nominations. These measures are already, for the most part, in operation in England and have been recently proposed to the New York legislature. They, too, would lift the candidate in a measure above dependence on and answerability to the party-machine—and it would place all candidates nearer on a level. Thirdly, we should rid the successful candidate of the degrading necessity of having to reward his party-workers



with offices. Even taking the ordinary ground and allowing for the moment that a man should be grateful to those who assist in elevating him to public office, though they ought rather to be grateful to him for accepting so responsible a trust in their behalf; there is no need that gratitude run to conferring offices. I do not hesitate to say that appointment to all offices not elective should be made simply for fitness and should continue during good behavior, and that the will or voice of successful candidates in elections should have next to nothing to do in the matter. Non-elective offices are almost all of a business nature, and there is hardly a business in this city that would not be well-nigh ruined, if conducted on the principles on which our post-office, or our custom-house, or our county-infirmary seems to be conducted. The maxim that "to the victors belong the spoils," is the source of more political demoralization than any other one influence in public life. It led the notorious Texas delegate to say at one of the party-conventions in Chicago eight years ago, "What are we here for but the offices?" But my particular point now is that we cannot expect more than a few of the best men in a community to stand for office in such a condition of affairs; nay, the party-machine, run on these principles, does not want the best men, it wants the most subservient men, the men who will best remember their obligations. It is this that gives so many men of moral fibre a disgust with politics, so that they feel like washing their hands clear of it; it is this that tends to invert the natural order and make private life more honorable and more dignified than public life. It is for an aroused public opinion to sweep this system of things away, to lift our public service, so far as it is not elective, out of "politics," to compel our politicians to take up questions of moment and public policy or else go out of the business, and to compel our non-elective office-holders—nay, they do not need to be compelled—to let "politics," alone.

If we could change our conception of public life, if we could attach new honor and dignity to it, if we could let the way be open for ideas to enter into politics, if we could lift our public servants above a degrading subserviency, the best men in the community would lose their repugnance to public life, and they would enter it once more to make it great and illustrious. Politics would then no longer be managed by machines or by interests, corporate or private. It would become an ennobling strife, a strife to serve, in the largest and the most radical way, the public good.

#### PLANTATION FOLK-LORE.

BY L. J. VANCE.

(Continued.)

It would be the extreme of error to suppose that tales, containing incidents which at first blush appear

silly, absurd, or impossible, are wholly destitute of literary value and interest. It seems to us that a reading public which has asked for edition after edition of stories of the "Ouida" order, may well condescend to listen to the clever and pointed tales of "Uncle Remus," or to the fright and ingenious fables of old Daddy Jack. Still, I am not disposed to set a higher value on our Negro Myths and *Märchen*, than that set on the early German Folk-stories by a critic so hard to suit as Thomas Carlyle. Certainly, it was with something like a shock of pleasant surprise to find him saying that, if the apologue of *Reynard the Fox* is nowise a perfect comic epos, it has various features of such, and, above all, a genuine epic spirit. Of course, we do not claim for the apologues of Uncle Remus and Daddy Jack anything like as high praise as that. If the present volume of "Negro Myths," had been issued during the Middle Ages it would have been known as one of the *Volks-Bücher* (People's books).\*

Once more, when so accomplished a poet and *littérateur* as Andrew Lang spends his best time and talent in poring over these "people's-books," we may rest assured that they contain some value to the student of comparative literature as well as for the comparative mythologist and ethnologist. "As a matter of fact," says Lang, "literature has borrowed far more from the people than the people have borrowed from literature, though both processes have been at work in the course of history." It can be shown that the most inspiring songs, the finest ballads, the greatest epics of a nation, have all come from one and the same source—the people. It can also be proved that where the Negro, or the German peasant, makes his characters beasts and birds, the epic poet makes them kingly heroes, or Knights of the Round Table. That the familiar tales of our childhood may be found in the *Iliad* and *Odyssey* seems strange, I take it, to most of us. Yet, such is the simple fact. As the Rev. Sir George Cox expresses it, "Until within the present generation boys read the *Iliad* and *Odyssey* and worked their way through the dramas of the Greek tragic poets under the fixed impression that they contain nothing with which children in our nurseries are familiar in other shapes." How many of us usually think of the *Nibelungentied*, the *Kalevala*, or the *Frithjof Saga*, as largely made up of the tales handed down by word of mouth from father to son, of the fairy stories told by the fireside or in the play-room, of the superstitious beliefs and practices in vogue among the common people, of the learning, or lore, in

\*Perhaps the finest collection of mediæval *Volks-Bücher* is owned by Prof. Crane of Cornell. Although these books passed through many editions, they are to-day catalogued as "scarce." One of the best known collection of tales was the *Disciplina Clericalis* (instruction for clerks or clergymen). For account of these early popular "chap-books" see Nisard's *Histoire des Livres Populaires*, and Dunlap's *History of Fiction*.



other words, of the Folk? Yet the epic poet and the Saga man have only taken a heterogeneous mass of Folk-lore and fused it into one symmetrical whole, investing his story with that peculiar beauty and charm which stamps it as a work of the highest human genius. How many of us would at first blush say that Shakespeare had borrowed as much from the people as the people had borrowed from Shakespeare? Very few; yet his wonderful dramas and plays are simply so many store-houses of traditions, customs, beliefs, of the people, of the Folk.\* Shakespeare was the English heir of ages of Folk-lore.

But to return to our "Negro Myths." The student of comparative folk-lore compares the stories, the same as the comparative philologist compares the speech, of different tribes or peoples. Holding that the *Märchen* were the exclusive possession of the Aryan race, the early students of mythology deemed it unscientific to compare the folk-stories of peoples which did not show any "tokens of affinity,"—of language, etc. But now, the thorough-going student of folk-lore believes it to be just as scientific to compare a Negro or a Hottentot fable with an Aryan fable, as to compare a German *Märchen* with a Greek or an Indian story. The question of the relation of *Märchen* to myths has been more correctly answered by those students of folk lore who hold that Negro, Hottentot, German and Hindu peasant are in the same tale. But the question here is: How do our Negro Myths and *Märchen* compare with the Myths and *Märchen* found all over the world? Now, speaking of the existence of stories and fables among the Southern Negroes, the editors of the *Journal of American Folk-Lore* say: "The origin of these stories, many of which are common to a great part of the world, has not been determined. In the interest of comparative research, it is desirable that variants be recorded, and that the record should be rendered as complete as possible."

For the purpose of this comparison, we shall here take the stories in this volume of "Negro Myths" in the order in which Mr. Jones has printed them.

No. III, "How Buh Cooter<sup>†</sup> fool Buh Deer," seems to have been an universal favorite among the Southern negroes. The fable has already appeared in three or four different versions. As told in Mr. Jones's book the story is briefly as follows: Buh Deer twits Buh Cooter because he walked so slow. Whereupon the latter challenges him to race "to de fibe mile pose," the following Monday. Now, the Cooter enters "inter

cohoot" (bargain) with five of his friends, whereby each of them is to station himself at every mile post on the day of the race. The race comes off, and Buh Deer is amazed to see Buh Cooter ahead of him at the first mile post, and so on to the fourth. "Eh so mad, eh try fuh kick Buh Cooler outer de road, an eh straighten fur de las mile pose. Wen eh git day, eh meet Buh Cooter puffin an er blowin an a leanin up gin de pose duh laugh at um." In the version given by Mr. Owen in *Lippincott's Magazine* (December, 1877), the race is between Buh Rabbit and Buh Frog. While in "Uncle Remus" we find that the race is between Brer Rabbit and Brer Terrapin. The writer in the *Riverside Magazine* for November, 1868, mentions a German version containing substantially the same incidents. Again, Dr. Bleek, in his Hottentot fable of "The Tortoises hunting the Ostriches," tells how the ostriches were compelled to run along through two rows of Tortoises, who called out as they run by, "Are you there?" And each one answered, "I am here." The ostriches kept running faster and faster until they fell down exhausted, and then the Tortoises came and devoured them. (See Bleek's Hottentot fables, No. 16, p. 32.) Once more, Prof. Crane in the article in the *Popular Science Monthly* before mentioned, calls attention a variant from Siam in the "Orient and Occident," III, 497. In Mr. Owen's version the question used by the Tortoises in the Hottentot fable is put in the form of a rhyme by the Frogs at each mile post, thus:

"Boo, hoo! Before you;  
I beat you there, I beat you here;  
I've beat you back to Miss Dinah's lap."

No. IV, "Buh Wolf, Buh Rabbit, an de Tar Baby," was another favorite with the plantation negroes. During a great drouth Buh Rabbit was too lazy to dig a well so he generously helped himself to the one which Buh Wolf had dug. The latter found this out, "an eh fix plan fuh ketch um. De same ebenin eh mek Tar Baby, an eh gone an set um right in de middle er de trail wuh lead to de spring, an dist in front er de spring." The next morning when the Rabbit came to the well with his calabash he was astonished to see the Tar Baby. As the Tar Baby would neither stand one side nor answer his questions, the Rabbit got vexed and "haul off an slap um side de head. Eh han fastne." Then Buh Rabbit hit him with the other hand, and "dat han fastne too same luk tudder." He then "kick de Tar Baby wid eh knee. Eh knee fastne." When the Rabbit butts the Tar Baby in the face and "eh head fastne same fashion luk eh han an eh knee," he becomes frightened and "eh bague; eh cry; eh holler." At this stage of the proceedings the Wolf comes, and after some parleying, says that if he knocks his brains out, "you guine dead too quick."

\* See Rev. Thibault Dyer's, "Folk-lore of Shakespeare," also M. Ritson's "Fairy Mythology of Shakespeare," etc. Referring to fairy mythology in the *Midsommer-Night's Dream*, Mr. Thoms says, "Shakespeare has embodied almost every attribute with which the imagination has invested the fairy race. \* \* \* Carefully and elaborately as he has finished the picture, he has not in it invested the 'lot of spirits' with one gift or quality which the popular voice of the age was not unanimous in bestowing upon them. Thoms's "Three Notoles on Shakespeare."

† Terrapin.



Me guine trow you in de brier patch, so de brier kin cratch you life out." The wily Rabbit, of course, begs him not to do that and "de minnit Buh Rabbit drap in de brier patch eh cock up eh tail, eh jump, an eh holler back to Buh Wolf, "Good bye, Budder! Dis de place me mammy fotch me up." This story is divided by Mr. Harris into two parts. The first part ends with the capture of the thieving Rabbit. The second part narrates the conversation between the Rabbit and the Fox, before the latter throws his victim in the brier patch. In Uncle Remus, (No. IV,) the Rabbit cries out, "Bred en bawn in a brier-patch, Brer Fox!" A variant from South America may be found in Mr. Smith's "Story of the Cotia who played Tricks on the Jaguar and outwitted him." ("Brazil, the Amazons, and the Coast," p. 549.) See also the *Riverside Magazine*, November, 1868.

In No. VII, "De King, eh Darter, Buh Wolf, an Buh Rabbit," and also in No. XIII, "Buh Wolf an Buh Rabbit," the main incident is pretty much the same. In the latter story Buh Wolf and Buh Rabbit "cote (court) de same gal." The latter in a spirit of bravado tells his lady-love that the Wolf was "nuttne (nothing) mo den eh farruh (father's) ridin horse." The Wolf hears of this boast, and determines to make the Rabbit go before "de gal" and confess his lie. So he goes to the Rabbit's house, but finds him sick in bed. He makes him get up, and the Rabbit, who is all the time feigning illness, persuades the Wolf to carry him on his back. Buh Rabbit then gets a saddle and bridle, and slips on a pair of sharp spurs. They reach the "big gate," Buh Rabbit who "slap spur to Buh Wolf, holler ter de Gal: 'Wuh me bin tell you? Juh me come pon me farruh ridin horse.' De spur hot Buh Wolf so bad eh couldnt do nuttne but run." The same story may be found in "Uncle Remus" (p. 34), where it is the Rabbit and the Fox. See also *Lippincott's*, 1877, p. 753. The "Story of the Jaguar who wanted to marry the Deer's Daughter, but was cut out by the Cotia," given in Mr. Smith's collection of Amazonian Myths, is simply the same story with different names. ("Brazil," etc., page 547.)

In No. XVII, "Buh Lion an Buh Goat," the point of the story lies in the bold answer which the Goat gives to the Lion, who is ready to devour him. "Hay! Buh Goat, wuh you duh eat? Buh Goat skade, but eh keep bole heart, an eh mek answer: "Me duh chaw dis rock, an ef you don't leff, wen me done, me guine eat you." In European *Märchen* it is a giant or an ogre who is deceived by the hero's braggadocio. See Grimm's, "The Giant and the Tailor," "The Valiant Little Taylor," (Nos. 20 and 183).

In No. XX, "De Po Man an de Snake," and in No. XXII, "De Cat, De Rat, De Cheese, an de Fox," we have

incidents more or less common to European *Märchen*. In the first named-story, after the snake befriends the poor man by giving him money, the latter turns around and tries to kill his benefactor. The second story tells how the Cat and the Rat are unable to agree upon their share of the stolen cheese, so they call in the Fox to decide. The knavish Fox says, "Begone, you rogue," and takes the cheese himself.

No. XXIX, "De Two Fren and de Bear," we recognize as a fable literally transcribed from our old friend Æsop. When the two friends meet the Bear, one of them runs away and climbs up a tree; the other who is thus left alone feigns death, and so escapes the embraces of the animal. "Wuh de Bear bin tell you?" semi-sarcastically inquires the man-from-the-tree. "Eh bin tell me nebbber fuh trus nobody wuh call ehself fren, an wuh gwine run luk er coward soon es trouble come."

(To be concluded.)

## FACTS AND PROBLEMS OF SCIENCE.\*

THE CONDITIONS OF LIFE.

BY W. PREYER.

PART III.

Translated from the German by F. W. Morton.

The inner conditions of life are much less definitely determined than the outer. By direct inner conditions of life is to be understood a certain sort of arrangement of the organic elements heretofore enumerated. This arrangement is a double one. On the one hand it must combine the elements into a series of peculiar chemical unions, which are more or less unstable. On the other hand, these chemical unions must be arranged in a series of peculiar forms, which do not exist in inorganic nature. The formation of these unions *biochemistry* seeks to explain. It has to ascertain the chemical composition of the organism in its minutest details *at every moment of life*, and to investigate the *chemical processes* which constitute the essence of the *change of matter*.

The further arrangement of the chemical unions into structures and of organs into bodies is the province of morphology, which aims to establish the anatomical composition of the organism in its minutest details *at every moment of life*, and perceive the *growth-processes* which constitute the *change of forms*.

Even at the present day, however, neither biochemistry nor morphology has accurately determined the direct inner conditions of life. The chemical unions, complicated beyond example, upon whose alternate destruction and re-construction depends finally the entire life-process, are in a high degree variable, so that only in the slightest measure can their action in the living body be discovered by artificial means.

When we say, what in itself is strictly true, that in



all living beings without exception at every time of life albumen or protoplasm is found, which is lacking in inorganic nature, we do not thereby establish an inner condition of life. Much rather we have scarcely accomplished more than if we said: In animate beings the elements are differently placed than in inanimate. • For the bioplasm in the egg and in the germ forms the basis from which all organs are differentiated; it is of itself the sole supporter of the most important functions of life, since it moves and multiplies as it breathes and nourishes itself within the organism. • It cannot, therefore, be designated as a condition of life simply, nor be used for explaining life; but this substance itself with its wonderful, changeful forms must first be explained.

By the motion of the protoplasm in the tiny germ of a seed, the surrounding earth, the air and the water are transformed under the influence of heat into a gigantic tree; and by the motion of the protoplasm in the heated egg its contents are transformed into a living animal. What produces the impulse? What forces the matter to so arrange itself that life results therefrom? Alas, chemistry cannot attain to an answer.

Morphology, too, when it shall have devoted itself more fully to the development of the parts, promises to elicit a much better knowledge of the inner conditions of life. • The ultimate parts of the organism in respect to anatomy, the simple forms to which the chemical union are applied, are, to be sure, not nearly so definitely to be traced to types or arranged in systems as are crystals in inorganic nature. What we call a cell is likewise something indefinable and variable, just as is that which we call species. The word "cell" is undeniably a very useful word; but since there are beings consisting of a single cell, which may be divided into parts, and the parts still not lose the life-phenomena of the whole, it is impossible to designate the cell as an ultimate *physiological* element, as a general condition of life, which has so often been done in the past and is still done.

With so limited a knowledge of the direct inner conditions of life, it is not to be wondered at that the indirect conditions should not have been determined, and the right course of inquiry should not have been found. It is known, that many organs are unnecessary to life, but it is not known, how many and what ones must be preserved, if the life-process is to suffer no collapse. There are men, who have lived after the amputation of both arms and both legs. In spite of this, the extremities are necessary for the maintenance of human life, for only by the hands and feet of others do the men just mentioned continue to exist.

Is the greatest part of the body indispensable to an independent existence? How much blood could one lose, without suffering death? Such questions as

a rule cannot be answered. We cannot ascertain then what parts of an organism are absolutely necessary to the maintenance of life; but in a measure we can ascertain those parts that are not necessary, because in many beings the severed portions lead lives of their own.

Although, as is seen from this whole exposition, our attainment of the conditions of life *in details* is very defective, *one* fact of extraordinary importance for an understanding of the life-process *as a whole* may be established with certainty from the knowledge alone of the direct external conditions.

The explanation of life will evidently be essentially facilitated if we can succeed in all but destroying the life of several animals by removal of the necessary outer conditions, and then after a considerable time restore life by restoring those conditions. If we were able to freeze a plant or animal body through and through, to dry one up thoroughly, to preserve one for a year wholly apart from the air in a cold exhausted space without food and without water, so that on an appointed day, after the admission of moist air it would start up in the heat and continue to live without the least injury to its health—just as if nothing had happened—then the whole method of investigating living bodies would be essentially simplified.

For, if the necessary conditions for the maintenance of all life were known, so that we could at pleasure say to lifeless beings "let there be life" and there would be life, we could then cherish even a well grounded hope of being able accurately to establish the necessary conditions for each separate function.

This production of life at pleasure, this winding up and stopping the clock of life, is in fact subject to the will of man. Nature herself performs the experiment millions of times, on a large scale or on a small one, on plants and animals, on seeds and eggs, as well as on completely formed beings, when in summer it dries up the organic dust and then after weeks of drouth restores it to life by invigorating rains, or when by currents of air nature transplants it to damp regions, and awakens it to new life.

The unwearying Leeuwenhoek was the first to make these fundamental observations. In his 144th letter on the revealed mysteries of nature he describes a series of infusoria, especially radiate animals, which on the 25th of August, 1701, he found in the water of a house gutter. This water he evaporated, and when as late as February, 1702, he took up the dry residue, he saw to his great astonishment that without exception the infusoria came to life again on being moistened with pure rain water. • He thought that all the species resuscitated by him had thick shells which in the process of drying did not permit the water in the interior to evaporate. • But this view, which was



shared by later scientists, is incorrect; because the surrounding skin or shell—which does not exist on all species—is not so thick as would be required for this. The animals rather shrink enormously, as may easily be seen with powerful magnifying glasses, so that they become unrecognizable and evidently do not contain water within the crust or shell. It is also possible, in 57 other infusoria, especially in dried *ursuli*, to note the swelling of the body and the extremities when they are moistened. This is one of the most beautiful spectacles which the microscope affords, for we see how the supposed particles of dust which only an adept can distinguish from the surrounding real dust, and then principally by their color, are brought into life.

The second observer was Turbervill Needham. In the summer of 1843 he discovered in diseased wheat little eel-like bodies which were wholly motionless and formed a thick confused mass. He moistened them so as better to observe the supposed fibres, and was highly surprised when they thereupon became alive. He was greatly perplexed at this accidentally discovered fact. He kept the mites for two years in a dry place, and ever and again they would come to life through the influence of water. His observations were confirmed and extended in the same year by Henry Baker. This scientist saw the dried animals come to life by moistening after the lapse of 27 years, just as after a few years. Similar results in respect to the same subject were attained somewhat later by Buffon, who established his priority against the great physiologist Fontana, who independently of all others made the same discovery in 1767. Buffon's account, however, is somewhat poor; and when he correctly observed and compared the anguillulae with little machines, he confused this good thought by his broader, phantastic statements respecting the living molecules.

Fontana, with brilliant success, extended his attempts at resuscitation to other animals. He dried, besides the anguillulinae, especially radiate animals, a hair worm and then brought it to life again by means of water. He felt called upon "to speak of this little wonder in a special treatise under the title: *On the Life and Apparent Death of Animals*." This treatise, however, is not extant.

The most extensive investigations respecting the resuscitation of lifeless animals were made by Spallanzani, who, in 1776, published in Modena his great work on animal and plant physics. By drying them he could make the same rotifers lifeless and by moistening them restore them to life eleven times. He found further that even at 19° below the freezing point of water and at a comparatively stronger degree of heat the dried animals still retained vitality. He it was who discovered the *ursuli*, which are especially

serviceable for such experiments, and which, being equipped with nerves, muscles and eyes are far more highly organized than any other animals revived by him.

This remarkable creature was first experimented with by C. A. S. Schultze, the first German scientist who turned his attention to the resuscitation of life. Discovered in Holland, confirmed in England and France, extended and more accurately established in Italy, the fact of revivifying small organisms made the rounds of half Europe without even a single fundamental investigation being made in Germany during more than a century. And after Schultze had published his observations in 1834 the fact was doubted by German scientists, and indeed utterly denied by Ehrenberg. In 1838, therefore, Schultze on the occasion of a scientific convention in Freiburg again set forth his discoveries. Here he showed those animals which had been called shell-animals, by Hufeland, but which he had named *macrobiotus* on account of their longevity. But Ehrenberg's strange explanation that presumably the supposed re-animated individuals were the descendants of the dried ones still for a long time kept scientists from accepting the new views.

Again came decisive work from abroad. Doyère in Paris had received some of the dried dust gathered by Schultze in Greifswald, and in 1840 and 1842 he published a notable monograph on the *ursuli*. Now investigations became more frequent. And if at the present time many do not believe in a complete cessation of the change of material at the stage which we call dried-up, there are yet facts enough to permit no further doubt.

Above all, the experiments with freezing are convincing. These can be performed with success on higher animals. Frogs, as I myself have repeatedly shown, can be frozen in all conditions to solid ice, so that the slightest trace of life no longer exists, so that no sign of vitality can be elicited from them by the greatest irritation, and then again come to life after having been thawed out, and appear just as before the experiment. Duméril, in 1852, performed such an experiment with entire success. Many fishes, we know, especially the white fish, the crucian and the pike can be frozen through and through or be left lying in the air, and still be revived on being moistened with water.

With warm-blooded animals only a very few experiments of this sort have been tried. Still, it is known that a few may be frozen even to the entire cessation of the heart's action and breathing, even to the complete disappearance of nervous and muscular sensibility, and then by careful heating become, for a time at least, alive again. And the chicken in the egg, before hatching, can be so greatly reduced in temperature, that the action of the heart ceases, with-



out suffering injury, if after a couple of days the normal heat is restored. It merely hatches so much alter, since it cannot regain the lost time. Fresh eggs, again, which have been frozen to solid ice, have developed, after gradual thawing, with complete regularity in the process of incubation.

Indeed, there are accounts from East India, attested by respectable persons, of men, who assert at least an apparent complete suspension of the life-process. The fanatical Jogins, if report be true, cause themselves to be buried for weeks at a time. They stop up the mouth and nose so as not to breathe, and accustom themselves daily to do without breathing as long as possible. Thus they seem, in fact, to have acquired the power of dispensing with air at will and of existing without food or water. It is probable, however, that this condition is more a lethargy, like the deep winter sleep of mammals, than an actual, complete stoppage of the change of matter, as is shown in the case of frozen and dried animals. The marmots, too, make no breathing motions in the deepest sleep, and the circulation of their blood, at least according to some observers, stops wholly in all confined places.

But, however it may be with the practices of the Jogins of India—even though their achievements be traced back to a wonderful art of legerdemain, and all indications pronounce against this—still the proof remains just as convincing from the experiments practiced on animals.

Besides this there are numerous observed facts of the plant world, which have in part this great advantage, viz., of applying to incomparably longer periods of time. Spallanzani saw a nostochaceæ dry up fifty times between July and October and lose its green color, and every time it became green and grew again, when, in its dried condition, it received water. Bonaventure Corti discovered in 1774 and more accurately described the revival of dried tremella by wetting with water, and of frozen tremella by supplying heat.

That the seeds of plants of the most different sorts may be kept dry for years, without losing the power of germination, has often been demonstrated by experiment. How long these may be kept, is shown by the following table:

SEEDS OF:	GERMINATED AFTER:	OBSERVER:
Radishes,	17 years,	Lefébvre.
Cucumbers,	17 "	Voss.
Mallows,	23 "	
Melons,	40—50 "	Tittmann.
Mimosa,	60—80 "	Gérardin, Van Swieten.
Rye,	140 "	Home.
Kidney beans,	17—200 "	Voss, Van Swieten.

Desmoulins tells of the seeds of several plants, which were found in graves at Rome, in 1834, and

which germinated after having lain in a dried condition for 1500 years. There are eggs of animals—though they may seem little like animals—which have already been kept more than half a century in a dry state, and still preserve their vitality. The eggs of the strudel worm (*Turbellaria*), the shell crab (*Ostracoda*), the crab flea (*Cyclopida*), and the flat-footed crab (*Apus*) bear a very protracted state of dryness without losing the possibility of development.

(To be concluded.)

#### THE SOURCE OF THE GOSPELS.

Rudolf Seydel, Professor of Theology in Leipsic, Germany, has advanced\* and very ably defended the theory that the Christian gospels have been borrowed from the Buddhist Sacred Literature, more especially from the Life of Buddha, the Hindoo Saviour. He does this not with any feeling of animosity toward the Bible, but with due reverence to Christianity and full appreciation of its ethical import. In spite of all his radical criticism, he is and remains a Christian. And the honest enquirer into truth is perhaps, even in the strictest sense of the word, a more faithful follower of Christ than many an orthodox believer in the literal inspiration of the Scriptures.

When the learned philologist Wolf first advanced his view that the poet Homer had never existed and that the Homeric epic was a collection of rhapsodies, as he called these songs, many admirers of Homeric poetry were alarmed and looked upon the great scholar's investigation as a sacrilege of poetical tradition. But we have learned to appreciate Homer more as an expression not of one individual but of the whole nation, of Greek genius itself.

Similarity we need not be afraid that Christianity will fall, if the historian proves it to be not a supernatural revelation but the natural outcome of human development. Christian ideas and Christian ideals will remain just as true. Only we will better understand them, and thereby be able to live up to their ethics. And this practical Christianity is according to Christ's own words the religion which he taught.

One of the most prominent opponents of Prof. Seydel's theory is Prof. Kuenen, who is at present a great authority on the Hebrew language and the books of the Old Testament. Kuenen objects to Seydel's evolutionary hypothesis that the Gospels developed from the Buddha legend because, as he correctly states, the New Testament is purer and nobler, simpler and more dignified than the Indian tales of Gautama Buddha.

We translate from Prof. Seydel's pamphlet, "The Buddha Legends and the Life of Jesus," on p. 25, the following passage in which he defends his position against his numerous critics:



"My attention has been called to the differences that exist and which in comparison with the resemblances are often very great and well-defined. Resemblance without any differences would be tantamount to equality. But in our case equality would be altogether inconceivable, in fact, an absolute miracle. Indeed the differences must be great, because the dissimilarity between the religions, the nationalities and the languages is so immense. Kuenen thinks that changes made in anything which has been appropriated must necessarily prove a deterioration and emasculation; whereas he sees in the gospels an improvement, a simplification and a sanctification of the fancy of the original. 'Compared with the Lahta Vistara, the gospels, and especially the first three, are exceedingly simple and temperate; nowhere do we find traces of an endeavor to let Christ vie with Buddha—in supernatural power, in the homage rendered by the inhabitants of heaven and earth, etc., etc. But there can be no doubt but that the evangelists exalt Jesus far above Buddha, the legend of whose life they have—as we suppose—learned from their ancestors and used for adornment. Is this a natural relation? Ought we not at least to expect that they would have greatly surpassed their prototype?'

"My opinion is that the Evangelists neither knew nor used the Buddha legends, but a Christian, poetical gospel, which had been modeled upon the frame work of the Buddha legend and had been written under the influence of Buddhist traditions and of many Buddhist themes,—themes in a musical sense. This work was a Christian work of art, in a similar manner as the other was a Buddhist work of art which had induced the poet to imitate it. Our evangelists found this poetical preparatory work among the "many" whom Luke mentions at the beginning of his gospel. They could use and cared to use very little of this, and they unconsciously allowed several traces of this source to remain in our gospels.

"That poet, however, was none the less a Christian. He had at his command altogether different means of surpassing the Buddha poetry, than an exaggeration of Hindoo fustian. The Hebrew and Christian earnestness and realism permitted only such use of the Hindoo poetry as we see here, and that was a great triumph for the Hebrew and Christian spirit.

"But why borrow at all? Because poets are poets. Why do our protestant artists paint ideal Madonnas, although Mary is to them not an object of worship, and why do they paint her with the halo? And has Holbein perhaps improved upon the Raphael type, by increasing the number of angels and saints, by exaggerating the divinity of Mary, or has he not, by translating the ideal of the Madonna in accordance with the feeling of the German family and the German

people, rather treated it in a manner similar to that in which the poet of the gospels treated the Buddha legends?

"In the Madonna with the infant we find, moreover, pictorially considered, a continuation and development of the Egyptian Isis-Horus group, and with what increased beauty and depth, especially in the paintings of Raphael and Holbein! In Pompeii was found a mural painting which represents Orpheus with his lyre, sitting, surrounded by animals; it corresponds in the most essential features to a picture of Christ in the Catacombs, in which, however, two sheep have taken the place of all other animals. The new church easily and gladly appropriated antique models, and the imitation of Greek prototypes is very extensive in early Christian art.

"The best and most telling reply to Kuenen's objections is to be found in the very domain of this eminent student of the Old Testament: in the relations of the Mosaic account of the creation and of the flood to their originals in the literature written in cuneiform characters. In this, just as in our case, we see a purification of pagan mythologic bombast, a translation into the language of pious earnestness and of the simple, vivid imagination of the Jews, a transformation out of the purely mythologic manner into a more historical one.

"In the history of poetry we frequently find the same theme used over and over in different periods; and, as a rule, we do not find the crudities of early forms treated with increased coarseness; but on the contrary, we much oftener discover a refinement and a nobler application of their essential parts, ever and again elaborated and remodeled. We need but recall the best known instances, Shakespeare and the Italian novels, Lessing's Nathan the Wise, and Goethe's Faust."

#### THE STARS.

BY \* \* \*

Ye golden stars in silent holy night,  
When breaks the day, in mighty competition  
Your brilliance dims 'mid rapid demolition,  
Ye and your splendor, beautiful and bright,

Ye fade away in its victorious light.  
Thus ends romance; poetic superstition  
Of darker ages suffers abolition.  
In light ye die, light-bearers of the night.

And yet ye are not dead, ye golden stars;  
Ye still are living in the brighter ray;  
No, not your light, the glorious sun-god mars;

Ye disappear; ye hide your radiant beauty  
Submissive sacrifice to faithful duty;  
But brighter beauty shines in dawn of day.



## CORRESPONDENCE.

## THE ANÆSTHETIC REVELATION.

To the Editor of THE OPEN COURT:

Mr. Xenos Clark's communication under the above heading, and his statement that "some psychologists" have been led "to declare the impossibility of considering the phenomenon a dream," etc., induce me to offer a few brief observations. Sir Humphry Davy once inhaled twenty quarts of unmingled nitrous oxide, and his subsequent "experiences" while in a state of gaseous exaltation have, I believe, often been alluded to by Spiritualists as tending to prove the existence in man of an immaterial vital essence. In his own account of what transpired after his awakening by Dr. Kinglake, Sir Humphry says that "indignation and pride were the first feelings produced by the sight of the persons about me. My emotions were enthusiastic and sublime; and for a moment I walked round the room, perfectly regardless of what was said to me. As I recovered my former state of mind, I felt an inclination to communicate the discoveries I had made during the experiment. I endeavored to recall the ideas; they were feeble and indistinct; one collection of terms, however, presented itself; and with the most intense belief and prophetic manner, I exclaimed to Dr. Kinglake, 'Nothing exists but thoughts! The universe is composed of impressions, ideas, pleasures, and pains.'"

Now if, with the psychologists alluded to by Mr. Clark, we so regard the emotions resulting from the hyperæsthesia of intoxication by nitrous oxide gas as to claim for them a place as "genuine philosophic insight," it seems to me that the only philosophy deducible therefrom is necessarily that of absolute Idealism. If psychology be a science, it must consist solely of the known and the knowable, since the *qual* of acknowledged insolubilities and of metempsychoses cannot enter within the domain of knowledge. For my part I shall rejoice if psychology—which, as G. H. Lewes says, "investigates the human mind, not an individual's thoughts and feelings, and has to consider it as the product of the human organism," be found ultimately to confirm the proposition of Berkeley that "the objects of knowledge are ideas, and nothing but ideas," because ideas are material things, the product of cerebration, so that after all, Idealism is itself Materialism. "Potentially," writes Lange, "the mind already includes within itself all that can be thought," a significant statement which may be placed in juxtaposition with Berkeley's claim that he had shown that ideas "exist only in the mind that perceives them." Conceding this, is it not evident that Sir Humphry Davy and other anæsthetic dreamers can give us no other "explanation of the universe" than the ideal one? When entranced, whether by sulphuric ether, by opium, or by hashish, and also when sober man lives in a world of ideas, and his universe is really an ideal one; his life without the mind-picture, the idea, would be as unconscious as that of a vegetable. Only, while in the state of exaltation, the person subjected to the stimulant inhabits a world in which merely the imaginative faculty is active, and so active—as in the case of Davy—as to permit "trains of vivid visible images" to career before the mental vision, these images being "connected with words in such a manner as to produce perceptions perfectly novel." I hope it will not be considered as indicative of what I may term Professional Agnosticism,—which I do not particularly admire—when I affirm that man's nature is a *res disjuncta* from what is outside of its own cognition. With all respect to the psychologists, I may be permitted to express my conviction that the world will derive as much knowledge from the visions of anæsthetics as from those of Jeremiah and Ezekiel. In both forms or phases of exaltation—the gaseous and the theomantic—the emotional phenomena are identical. We find in both lofty sublimity and high enthusiasm. Fortunately for himself, the gas-inspired visionary soon

returns to his normal condition of sanity, whereas the victims of what alienists term religious excitation may continue for many years to breathe an unreal atmosphere and to figure as mystagogues, until perchance mental restoration follows upon a tragedy like that of Pocasset or an all-sufficient cure be effected by a consummation like that of Calvary.

M. C. O'BRYNE.

## BOOK REVIEWS.

SANDRA BELLONI, *Geo. Meredith*, Boston. Roberts Bros.

Mr. Meredith is the author of long delayed success, whose late popular welcome to the ranks of fictitious literature ought to compensate in some degree for his early trials. The author of Richard Feverel is the greatest English novelist of the day, according to the well-spoken judgment of some of the most competent critics. His fire, vigor, piquant style, a mastery knowledge of the human species, as found on the soil of his native England, is beyond compare. Sandra Belloni holds a worthy place among the other works which the enterprising firm, republishing them in this country, is issuing. It is of even more attracting interest than *Feverel*. Each character is a study fitting with admirable naturalness into the narrative. The touch of genius is on every page of this writer's works.

C. P. W.

IS PROTECTION A BENEFIT. *Edward Taylor*. Chicago. A. C. McClurg & Co.

The answer which the writer makes to the question forming his title may be premised from the motto from Bentham on the title page, "Industry makes to Legislation the modest request of Diogenes to Alexander, 'Stand out of my sunshine.'" The book is a compact treatise on Free Trade, combining an historical sketch of the tariff system in continental Europe, England and this country. The opening lines of the introduction have a peculiar aptness in these days of Presidential conventions and all the blare and noisy assumption of pretended political issues. "For more than twenty years our national politics have looked toward the past and not toward the future," but the time is coming, the author thinks, and we trust with him, when "arguments upon economic, political and moral questions are to take the place of old-time appeals to local prejudices and sectional animosities." Mr. Taylor's book is well fitted to prepare the way for an intelligent consideration of the higher, intellectual and moral questions involved in our national politics. C. P. W.

MATERIALIEN AUS DEM KATHECHUMENEN-UNTERRICHT VON DR. H. ELTESTER. Second edition, edited and revised by H. Ritter. Berlin: 1888. Georg Reimer.

In 1868, one year before his death, Dr. Eltester gave to the world the first edition of the work before us. In the preface to that edition he tells us that he presents the methods and substance of his teachings for many years in the rudiments of Christian Doctrine. He confesses the plan is unsystematic, having followed simply the lines of instruction as laid down in the conventional catechism. He professes to give nothing more than scattered fragments and probably suggestive material from the sphere of his personal instruction, making no pretension to uniformity, consistency or logical completeness. Dr. Eltester says he has always found completeness and uniformity of treatment monotonous and wearisome in sermons, and that, in juvenile instruction especially, such qualities of excellence would more impede instruction by producing inattention than would shortcomings in method or presentation of material. A similar avowal would scarcely be tolerated in any branch of secular instruction, and we must seek its justification in the nature of the subject. We admit that there is a goodly bit of volatility about such topics as Consubstantiation and the Trinity of the Godhead, and that they must be approached in the manner least calculated to endanger their confinement; but, with it all, the sense of scientific propriety should demand a fairer and more rigid



treatment of any subject, whether it be a Lutheran catechism or a treatise on meteorology. Dr. Eltester's death followed soon upon finishing the Sixth Commandment. The work came into other hands, and thus was added another element of incompleteness. The present editor tells us, however, that the demand for the book has never decreased, the first edition becoming exhausted in twenty years, and we must infer that the work has accordingly fulfilled its mission. It remains merely as its title suggests, materials, or rather fragments of catechismal instruction. jusp.

LIFE OF DR. ANANADIBAI JOSHEE. *Mrs. C. H. Dall*, Boston. Roberts Bros.

Dr. Ananadibai Joshee did not live to win that deserved fame and recognition of her heroic qualities which her kinswoman, the Pundita Ramabai has gained for herself. The latter, through her efforts to establish a school in India for the protection and education of high caste widows has become well known in this country where she is about completing her travels. The story of Dr. Joshee, who left home at the age of eighteen to come to this country to study medicine that she might return to India to practice this merciful art among her countrywomen, is one of the most touching narratives we ever read. Her untimely death has cast a halo around that youthful figure, which her gentle and heroic character well deserved. Mrs. Dall, an intelligent and interesting writer always, has told the story with her usual directness of style, and a warm sympathy vivifies the book from beginning to end. The work will do much to increase the rising interest in India, land of wisdom and benighted superstition, of general education and prepare the way for the active and intelligent co-operation of more favored lands to the end of her growing culture and civilization. C. P. W.

"The longer we live, the more we find we are like other persons," says Dr. Oliver Wendell Holmes, in a recent essay. And George Sand, in her preface to "André," quotes approvingly the Italian proverb, *Tutto il mondo è fatto come la nostra famiglia*. ("All the world is made like our own family") These opinions are significant. It is natural for men to believe in Ormuzd and Ahriman, in heroes and villains, in geniuses and dunces, to paint black very black and white very white, to have sharp division between right and wrong, to give intense worship to the things they believe to be worshipful, and intense hatred to those that are hateful. It is natural also for men to range themselves on the right hand of the Lord, and to surrender the left to those who differ from them in creed, in temperament, in morals, in conventions, in hereditary training, in opinions. Men and races commence by believing themselves the chosen people, their gods the only gods, their prophets the true prophets, their warriors the bravest and most glorious. Outside of the little radius of land that they occupy is *terra incognita*, inhabited only by barbarians and Philistines.—W. S. WALSH, in *Lippincott's* for July.

#### NOTES.

THE OPEN COURT has received from Professor Ernest Mach an essay entitled "*Ueber Umwidmung und Anpassung im Naturwissenschaftlichen Denken*" (Transformation and Adaptation in Scientific Thought). This article was delivered as an address in October, 1883, when Prof. Mach assumed the rectorate of the University of Prague and will now be published for the first time in an English translation, to appear in Numbers 46 and 47 of THE OPEN COURT. The Essay will be found to be unusually suggestive, emphasizing and analyzing, as it does, the unity of development in scientific thought. The eminent physicist has not directly treated this theme elsewhere in his scientific publications, although the idea has been incidentally touched upon in many of his works. Prof. Mach's treatise on Mechanics which has recently appeared in the International Science Series, is per-

haps the most representative of his works, but to fully appreciate his position in the world of science, we must look to his earlier publications, when the ideas he advanced were not shared by all scientists and were not so generally accepted as at present, similar ideas having been later expressed by Kirchhoff and Helmholtz. We may refer to "*Die Geschichte und die Wurzel des Satzes der Erhaltung der Arbeit*" (Prague, Calve, 1872), "*Die Gestalten der Flüssigkeit*" (Prague, Calve, 1872), and "*Die ökonomische Natur der physikalischen Forschung*" (Vienna, 1881). The spirit and tendency of Prof. Mach's works are, as he himself says, elucidative or anti-metaphysical: they oppose empty speculation. The idea that Science is Economy of Thought lies at the basis of Prof. Mach's views.

In our discussion of the Field-Ingersoll controversy we pointed out the unity of mankind and the continuity of ideas which grow and develop as they are handed down from generation to generation. The unity of the intellectual life of mankind is touched upon by Gustav Freytag in the chapter of *The Lost Manuscript*, published in this number. Contemplating the insignificance as well as the immeasurable importance of the individual in his relation to the great whole, Professor Werner says (page 1085 of THE OPEN COURT):

"Whilst man struggles for himself and his own ends, he unconsciously influences his own time, and his own people for all futurity. By ennobling the ideals and duties of future generations, he pays his own debt to life. Death vanishes from history in such a conception. The result of life becomes more important than life itself."

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

##### CHAPTER XIX.

##### THE ILLNESS.

It was the first burst of spring in the wood and gardens adjoining the city. The buds and the caterpillars had slumbered together in quiet winter dreams; now the leaves expanded, and the grubs crawled over the young green shoots. Under the bright rays of the sun in its higher course, the struggle of life began,—the blooming and withering, the rich colors, and the frost under which they were to fade, the bright green leaves and the caterpillars that gnawed them; the eternal strife began anew in buds and blossoms just as in the heart of man.

Ilse, in her hours of instruction, was now reading Herodotus; he, too, was a harbinger of spring for the human race; hovering above the borderland between dreamy poetry and unclouded reality, the glad proclaimer of a time in which the people of the earth rejoiced in their own beauty and perfection, and first began to seek seriously truth and knowledge. Again Ilse read with passionate excitement the pages which brought a shattered world before her eyes with such vivid reality. But there was not the same serene and exalted pleasure in the narrative as in the works of the great poet who so directed the fate and deeds of his heroes as to produce a pleasing impression upon the mind, even when they excited sorrow and fear. For it is the privilege of human invention to form the

\* Translation copyrighted



world as the tender heart of man desires it; with alternations and fitting proportions of happiness and sorrow, the recognition of each individual according to his powers and actions, and due compensation. But the mind which here delineated the life of the past, did so in a superhuman manner, life crowded life, so that one devastated the other, destruction mercilessly overtook them, good and bad alike; here too, there was retribution; here, too, there was, a curse, but their effect was incomprehensible and cruel. What was good ceased to be good, and evil gained the victory. What was first a blessing afterwards became ruin; what was now beneficent greatness and dominion, afterwards became a disease, which destroyed the state. The individual heroes were of little importance; if a great human power rose and dominated for a moment, Ilse soon saw it disappear in the whirling stream of events. Croesus, the over-confident, good-hearted king, fell; the powerful Cyrus passed away, and Xerxes was beaten. But nations also sank, the blooming flower of Egypt withered, the golden realm of Lydia was shattered, and mighty Persia first corrupted others and then itself. In the young Hellenic people, that rose with such heroic strength, she already saw busily at work violence, evil deeds, and enmities, through which the most beautiful picture of antiquity, after short prosperity, was to pass away.

Ilse and Laura were sitting opposite each other, with an open book lying between them. Laura, indeed, was not admitted to the private lessons of the Professor, but her soul faithfully accompanied Ilse on the path of learning. Ilse imparted the acquisitions of her hours of instructions to her, and enjoyed the sweet pleasure of infusing new ideas into the mind of her friend.

"I felt great indignation at this Xerxes," cried Laura, "even from what I read in the primer:

"Xantippe was a cross, mean thing  
No peace her husband had.  
But Xerxes was a Persian King  
And he was just as bad."

I long thought that Xantippe was his wife, and I wish he had had her. On the other hand, look at the three hundred Spartans who sent the others home and encircled themselves with wreaths, anointed themselves, and put on the festive garb to march to death. That elevates the heart; they were men. If I could show my veneration for their memory by means of my stupid head and weak hands, I would work for it till my fingers ached. But what can a poor creature like me do? At the utmost, embroider traveling-bags for their journey to the lower world, and these would come two thousand years too late. We women are pitiable creatures," she exclaimed, with vexation.

"There were others in the battle," said Ilse, "who affected me more than the three hundred Spartans. These were the Thespians, who fought and died with them. The Spartans were impelled by their proud hearts and the strict discipline and commands of their rulers. But the Thespians died willingly. They were a small people, and they well knew that the greatest honor would attach to their distinguished neighbors. But they were faithful in their humble position, and that was far more self-sacrificing and noble. Ah! it was easy for all of them," she continued, sorrowfully; "but for those who remained behind, their poor parents, wives and children at home, what destruction of happiness and unspeakable misery!"

"Misery!" cried Laura; "if they thought as I do, they were proud of the death of their loved ones, and like them wore garlands in their sorrow. What is the purpose of our life if we cannot rejoice in giving ourselves up for higher things?"

"For higher things?" asked Ilse. "What men value higher than wife and child, is that higher for us also? Our duty is to devote our whole hearts to them, our children, and our home. When, therefore, they are taken from us, our whole lives are desolated and nothing remains but endless sorrow. It is natural for us to view their vocation differently than they do themselves."

"I would like to be a man," cried Laura. "Are we then so weak in mind and spirit, that we must have less enthusiasm, less feeling of honor, and less love for our Fatherland than they? It is a fearful thought to be one's whole life long only the waiting-maid of a master who is no stronger or better than oneself, and who wears overshoes, that his feet may not get wet, and a woollen muffler the moment a breath of cold air blows."

"They do wear these things here in the town," replied Ilse, laughing.

"Yes, nearly all of them do," said Laura, evasively; "but believe me, Frau Ilse, these men have no right to expect us to devote our whole heart and lives to them. It is just the most thorough of them that do not give us their full heart. And how should they? We are good enough to entertain them, and darn their stockings, and perhaps become their confidants, if they should accidentally be at a loss what to do; but the best of them look beyond us to the great All, and in that is their special life. What is right for them should also be fitting for us."

"And have we not enough in what they give us of their life?" asked Ilse. "If it is only a portion it makes us happy."

"Is it happiness never to experience the highest



of emotions?" exclaimed Laura. "Can we die like Leonidas?"

Ilse pointed to the door of her husband's room. "My Hellas sits there within and works, and my heart beats when I hear his step, or only the scratching of his pen. To live or die for the man one loves is also an elevating idea, and makes one happy. Ah, happy only if one knows that one is a source of happiness to him also!"

Laura threw herself at the feet of her friend, and looked entreatingly into her anxious face. "I have made you serious with my prattling, and that was wrong of me; for I would gladly conjure a smile to your lips every hour, and always see a friendly light in those soft eyes. But do bear with me; I am a strange, unaccountable girl, and often discontented with myself and others, and frequently without knowing why. But Xerxes was a good for nothing fellow, to that I stick; and if I had him here I could box his ears every day."

"At all events he received his due," replied Ilse.

Laura started suddenly. "Was that a proper retribution for the wretch who had destroyed or made miserable hundreds of thousands, to return home without a scratch? No punishment would be severe enough for such a wicked king. But I know right well how he became so; his mother and father spoiled him; he had always lived at home, had grown up in luxury and all men were subject to him. And so he treated all with contempt. It would be the same with others if they were in the same position. I can well imagine myself such a monster, and many of my acquaintances too."

"My husband?" asked Ilse.

"No, he is more like Cyrus or Cambyses," replied Laura.

Ilse laughed. "That is not true. But how would it be with the Doctor over there?"

Laura raised her hand threateningly towards the neighboring house. "He would be Xerxes, just as he is in the book, if one could think of him without spectacles, in a golden dressing-gown, with a sceptre in his hand, without his good heart (for Fritz Hahn undoubtedly has that); somewhat less clever than he is, and still more spoilt, as a man also who has written no book, and learnt nothing but to treat others badly; he would then be Xerxes out and out. I see him sitting before me on a throne, by a brook, striking the water with a whip because it made his boots wet. He might have become a very dangerous fellow if he had not been born here close to the city park."

"I think so too," replied Ilse. In the evening, in the course of her hour of study, Ilse said to her husband: "When Leonidas died with his heroes, he saved his countrymen from the rule of foreign barbar-

ians; but after him many thousands of these glorious men fell in the civil wars of the cities. In these quarrels the people became deteriorated, and before long other strangers came and deprived their descendants of their freedom. For what end did these many thousands die?—of what use was all the hatred, and enthusiasm, and party zeal?—it was all in vain, it was all a token of decay. Man is here like a grain of sand that is trodden down into the earth. I find myself facing a terrible mystery and I am afraid of life."

"I will endeavour to give you a solution," replied her husband, seriously; "but the words which I am now about to speak to you are like the key to the chambers of the wicked Bluebeard: do not open every room too hastily, for in some of them you will discover what, in your present frame of mind, may raise anew your fears."

"I am your wife," cried Ilse, "and if you have any answer for the questions which torment me I demand it of you."

"My answer is no secret to you," said the Professor. "You are not only what you consider yourself—a human being born to joy and sorrow, united to individuals by nature, love, and faith—but you are bound body and soul to an earthly power, of which you think but little, but which, nevertheless, guides you from the first breath you drew to the last gasp of life. When I tell you that you are a child of your people, and a child of the human race, the expression will come so naturally to you that you will not assign any deep meaning to it. Yet this is your highest earthly relation. We are too much accustomed from childhood on to cherish in our hearts only the individuals to whom we are bound by nature or choice, and we seldom stop to think that our nation is the ancestor from whom our parents are descended, that has produced our language, laws, manners, that has given us all we possess, given us everything that constitutes our life, and almost all that determines our fortunes, and elevates our hearts. Yet not our nation alone has accomplished this; the peoples of the earth stand to one another as brothers and sisters, and one nation helps to decide the life and fate of others. All have lived, suffered, and worked together, in order that you may live, enjoy, and do your part in life."

Ilse smiled. "The bad king Cambyses, and his Persian also?"

"They also," replied the Professor; "for the great net of which your life is one of the meshes, is woven from an infinite number of threads, and if one had been lost the web would be imperfect. Take first a simple illustration. You are indebted to the people of a period, of which every record is now wanting, for the table by which you sit, the needle which you hold in your hand, and the rings on your fingers and in your



ears; the shuttle was invented by an unknown people in order that your dress might be woven, and a similar palm-leaf pattern to that which you wear, was devised in the manufactory of a Phœnician."

"Good," said Ilse; "that pleases me; it is a charming thought that antiquity has provided so considerably for my comfort."

"Not that alone," continued the scholar. "What you know, and believe also, and much that occupies your heart, has been delivered to you through your nation from its own and foreign sources. Every word that you speak has been transmitted and remodelled through hundreds of generations, to receive thereby that sound and significance which you now so easily command. It was for this object that our ancestors came into the country from Asia, and that Arminius struggled with the Romans for the preservation of our language, that you might be able to give Gabriel an order which both could understand. It was for you the poets lived, who, in the youth of the Hellenic people, invented the powerful rhythm of the epic verse, which it gives me such pleasure to hear from your lips. Furthermore, that you may believe, as you do, it was necessary that three hundred years ago there should take place in your Fatherland a great and might struggle of opinion; and again, more than a thousand years earlier, a mighty conflict of the soul in a small people of Asia; and again, fifty generations earlier still, venerated commandments given under the tents of a wandering people. You have to thank a past which begins with the first life of man on earth for most that you have and are, and in this sense the whole human race has lived in order that you might be able to live."

Ilse looked excitedly at her husband. "The thought is elevating," she exclaimed, "and is calculated to make man proud. But how does that agree with this same man being a nonentity, and crushed like a worm in the great events of history?"

"As you are the child of your nation, and of the human race, so has every individual been in every age; and as he has to thank that greater human fabric, of which he is a portion, for his life and nearly all its content, so is his fortune linked to the greater fortune of his nation and to the destiny of mankind. Your people and your race have given you much, and they require as much from you. They have preserved your body and formed your mind, and they demand in return your body and mind. However lightly and freely you move about as an individual, you are answerable to these creditors for the use of your freedom. Whether, as mild masters, they allow you to pass your life in peace, or at some period demand it of you, your duty is the same; whilst you think that you live and die for yourself, you live and die for them.

Contemplated in this way, the individual life is immeasurably small compared with the great whole. To us, the individual man who has passed away can only be discerned in so far as he has influenced others; it is only in connection with those who preceded him, and those who come after him, that he is of importance. But in this sense great and little are both of value. For every one of us who brings up his children, or governs the State, or in any way increases the welfare, comfort, and culture of his race, performs a duty towards his people. Countless numbers do this, without any personal record of them remaining; they are like drops of water, which, closely united with others, run on as one great stream, not distinguishable by later eyes. But they have not on that account lived in vain; and, as countless insignificant individuals are preservers of culture, and workers for the duration of national strength, so the highest of powers, individuals—the greatest heroes and the noblest reformers—only represent in their lives a small portion of that national strength. Whilst man struggles for himself and his own ends, he unconsciously influences his own time, and his own people for all futurity. By ennobling the ideals and duties of future generations, he pays his own debt to life. You see, my beloved, how death vanishes from history in such a conception. The result of life becomes more important than life itself; beyond the man is the nation—beyond the nation is mankind; every human being that has moved upon earth has lived, not only for himself, but for all others, and for us also; thus our life has been benefited by him. As the Greeks grew up in noble freedom and passed away, and as their thoughts and labors have benefited later generations of men, so our life, though it moves in a small circle, will not be useless to future generations."

"Ah!" cried Ilse, "that is a view of earthly life which is only possible to those who do great things, and in whom later times will take an interest; my blood runs cold at the thought. Are men, then, only like flowers and weeds, and a nation like a great meadow, and what remains, when they are mowed down by time, only useful hay, for later generations? Surely all that once existed and all existing at present have lived also for themselves, and for those whom they have loved, for wife and children and friends, and they were something more than ciphers among millions; something more than leaves on an enormous tree. Though their existence is so insignificant and useless, that you can perceive no trace of their work, yet the life and the soul of the beggar and the life and the soul of my poor invalid in the village are guarded by a power which is greater than your great net that is woven of the souls of men."

She arose and gazed anxiously into her husband's



face. "Bow your human pride before a power that you do not understand."

The scholar looked at his wife with deep solicitude. "I do bow humbly before the thought that the great unity of human beings on this earth is not the highest power of life. The only difference between you and me is, that my mind is accustomed to hold intercourse with the higher powers of earth. They are to me revelations so holy and worthy of reverence, that I best love to seek the Eternal and Incomprehensible by this path. You are accustomed to find the inscrutable in the conceptions which have been impressed on your mind through pious traditions; and I again repeat what I before said, your faith and yearnings arise from the same source as mine, and we seek the same light, though in different ways. What the Gods, and also the Angels and Archangels were to the faith of earlier generations—higher powers which, as messengers of the Highest, hovered about and influenced the lives of men—the great intellectual unity of nations and mankind are in another sense to us, personalities which endure and yet pass away, though according to different laws from what individual men do. My endeavour to understand these laws is one form of my piety. You yourself will gradually learn to appreciate the modest and elevating conceptions of the holy sphere in which I live. You also will gradually discover that your faith and mine are about the same."

"No," cried Ilse, "I see only one thing, a great gulf which divides my thoughts from yours. Oh, deliver me from the anguish which tortures me in my concern for your soul."

"I cannot do it, nor can it be done in a day. It can only be done by our own lives, by thousands of impressions and by thousands of days, in which you will become accustomed to look upon the world as I do."

He drew his wife, who was standing as if transfixed, nearer to him. "Think of the text: 'In my father's house are many mansions.' He who so spoke knew that man and wife are one through the strongest of earthly feelings, which bears all and suffers all."

"But what can I be to you to whom the individual is so little?" asked Ilse, faintly.

"The highest and dearest being on earth, the flower of my nation, a child of my race in whom I love and honour what was before and will survive us."

Ilse stood alone among the strange books; without, the wind howled round the walls, the clouds flitted across the face of the moon; soon the room became dark, and then was lighted up by a pale glimmer. In the flickering light the walls seemed to spread and rise to an immeasurable height; strange figures rose from among the books, they glided by the walls, and

were suspended from the ceiling, an army of grey shadows, which by day were banished to the bookshelves, now came trooping towards her, and the dead who continued to live as spirits on earth stretched out their arms to her and demanded her soul for themselves.

Ilse, with head erect, raised her hands on high, and called to her aid the beautiful images, which from her childhood had surrounded her life with blessing, white figures with shining countenances. She bent her head and prayed: "O guard the peace of my soul."

When Ilse entered her room she found a letter from her father on her table; she opened it hastily, and, after reading the first lines, sank down sobbing.

Her father had informed her of the death of an old friend. The good pastor had been borne away from the narrow valley to the place of rest, which he had chosen in the churchyard, near his wife. He had never recovered from the disquiet which the departure of Ilse had caused him; he had passed the winter in lingering illness, and one warm spring evening death came upon him while sitting before his peach-tree in the garden. There the faithful servant found him, and ran with the terrible news to the manor. A few hours before he had requested Clara to write to his dear child in the city, that all was well with him.

Ilse had often been anxious about the life of her friend during the winter, so the account was not a surprise to her. Yet now she felt his loss as a terrible misfortune; it was a life which had been firmly and faithfully devoted to her; she well knew that in later years she had become almost exclusively the object of his thoughts and fond affections. She had abandoned one who had been part of her life, impelled by a stronger feeling, and it now appeared as if she had done wrong in parting from him. She saw the staff broken which had bound her firmly to the feelings of her childhood. It seemed as if the ground tottered beneath her, as if all had become insecure, the heart of her husband, and her own future.

The Professor found her dissolved in tears and bending over the letter; her grief moved him, and he anxiously begged her to think of herself. He spoke to her tenderly, and at last she raised her eyes to him and promised to be composed.

But it was in vain. After a few hours he was obliged to carry her to bed.

It was a dangerous illness. There were days in which she lay unconscious in death-like weakness. When, at times, she opened her weary eyes, she looked into the careworn countenance of her husband, and saw Laura's curly head tenderly bending over her; then all would vanish again in vague insensibility.

(To be continued.)



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## THE FUNDAMENTAL PROPERTIES OF MATTER.

J. G. VOGT.....In Nos. 29, 31 and 34.

To the kinetic conception of the world's mechanism Vogt opposes his hypothesis of a continuous world-substance completely filling space and whose sole manifestation of power consists in contraction or condensation. He claims that the kinetic or mechanical theory which explains organized and spiritual phenomena from inelastic atoms and a purposeless force, is untenable; and that pseudo-monomism which transforms the most complex conditions and processes of psychical life into the elementary substance itself, involves the fallacy of idealism and dualism. As opposed to both views Vogt propounds his conception which he calls Monism of Reality. He attributes to matter two fundamental properties, motion and sensibility, and deduces from these elementary properties the higher phenomena of intellectual life.

## THE INDIVIDUALITY OF ATOMS AND MOLECULES.

REV. H. H. HIGGINS M. A., Jr. Nos. 41 and 42.

Mr. Higgins says: "Evolutionists have to choose between discontinuity and the recognition of a universal principle of life, which may be regarded as mechanical, but as inherent in the primordial atom." This idea underlies the theory of J. G. Vogt also. But Mr. Higgins attributes an individual *élan*, or life-unit, to every atom, while Vogt postulates a continuous, contractile, elastic world-substance, wherein the atoms of modern chemistry are made to be centres of condensation. Mr. Higgins hypothesis endows each atom with an idiosyncrasy which comprehends all that determines its individuality and makes it what it is. The essay should be read in connection with a letter in No. 43 upon "The Origin of Life and the Problem of Memory."

## FREE-WILL A MECHANICAL POSSIBILITY.

XENOS CLARK.....In No. 39.

Mr. Xenos Clark here presents in an interesting and attractive manner certain scientific analogies bearing upon Free-Will and Determinism. A novel and ingenious application is made here of the theory of linkages and link-work which of late has so interested mathematicians and been developed with such striking success by Prof. Sylvester. The article will be found to be unusually suggestive, although it is not in accord with THE OPEN COURT, which, in an editorial of No. 33, admits the truth of both *Free-Will* and *Determinism*.

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Entered at the Chicago Post-Office as Second-Class Matter.

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"As little as we possess a thing called hunger because we are hungry, do we possess a thing called reason because we are rational. Why, then, should we write it with a Capital R, and make a goddess of Reason and worship her, as she was actually worshipped in the streets of Paris? \* \* \*

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## TRANSFORMATION AND ADAPTATION IN SCIENTIFIC THOUGHT.\*

AN INAUGURAL ADDRESS DELIVERED UPON ASSUMING THE  
RECTORATE OF THE UNIVERSITY OF PRAGUE,  
ON OCTOBER 18, 1883.

BY ERNST MACH.

*Translated from the German by Mphk.*

### PREFATORY REMARK.

The idea advanced in the following essay is really neither new nor strange. I had myself discussed it cursorily as early as 1867, and have touched upon it several times since; yet it has never formed the subject proper of any disquisition I have written. Undoubtedly others have treated it; the idea lies, so to speak, in the atmosphere. Some of the illustrations which I made use of in the detailed treatment of the subject, have met with favorable recognition, although they were known only in an imperfect form, from the reports of daily papers upon my spoken address. For this reason I decided to publish this essay, which I had not originally intended.

I do not wish, in this matter, to trespass upon the domain of Biology. My statements are to be taken simply as the expression of the fact that no one can escape the influence of a great and far-reaching idea.

It was towards the close of the sixteenth century when Gallileo with a superb indifference to the dialectic arts and sophistic subtleties of the Schoolmen of his time, directed the attention of his brilliant mind to nature and natural phenomena. By nature his ideas were transformed and released from the fetters of contemporary prejudice. At once the mighty revolution was felt, which was therewith effected in the realm of human thought—felt indeed in circles far remote and wholly unrelated to the sphere of Science, felt in strata of society which had hitherto but indirectly recognized the influence of scientific thought.

And how great and how far-reaching was this revolution! From the beginning of the seventeenth century till its close we see arising, at least in embryo, almost all that plays a part in the natural and technical science of our day, almost all that in the two centuries following has so wonderfully transformed the facial appearance of the globe, and all that is moving onward in process of such mighty evolution to-day. And all this, the direct result of Gallilean ideas, the

direct consequence of that freshly awakened sense for the investigation of natural phenomena which taught the Tuscan philosopher to form the concept and the law of falling bodies from the observation of a falling stone! Gallileo began his investigations without an implement worthy of the name; he measured time in the most primitive way, by the dropping of water. Yet soon afterwards the telescope, the microscope, the barometer, the thermometer, the air-pump, the steam-engine, the pendulum and the electrical machine were invented in quick succession. The fundamental theorems of Dynamical Science, of Optics, of Heat and of Electricity were all disclosed in the century that follows Gallileo.

The movement that was instituted by the illustrious biologists of the last one hundred years and then called into life by the late Mr. Darwin, is of scarcely less importance. Gallileo quickened the sense for the simpler phases of *inorganic* nature. And with the same simplicity and frankness that marked the efforts of Gallileo, and without the aid of technical or scientific instruments, without physical or chemical experiment, but solely by the power of thought and observation, Darwin grasps a new property of *organic* Nature—the PLASTICITY of living substance.\* With the same directness of purpose, Darwin too pursues his way. With the same candor and love of truth, Darwin too points out the strength and the weakness of his demonstrations. With masterly equanimity he holds aloof from the discussion of irrelevant subjects and he thus wins the admiration of his adherents and commands the respect of his adversaries.

Thirty years have not yet elapsed since Darwin first propounded the principles of his Theory of Evolution. Yet we already see his ideas becoming firmly

\* At first sight an apparent contradiction arises from the admission of both heredity and adaptation; and it is certainly true that a strong disposition to heredity precludes any great capability of adaptation. But imagine the organism to be like a plastic mass which retains the form transmitted and gives it by former influences until new influences modify it; the one property of *plasticity* will thus be seen to represent capability of adaptation as well as of hereditary transmission. Analogous to this is the case of a bar of magnetized steel of high coercitive power; the steel retains its magnetic properties until a new force displaces the same. Take also a body in motion; the body retains the velocity acquired in (*inherited* from) the interval of time just preceding; unless the same be changed in the next moment by some accelerating force. In the case of the body in motion the change of velocity (*Abänderung*) was looked upon as a matter of course, while the discovery of the principle of *inertia* (or persistency) created surprise; in Darwin's case, on the contrary, *heredity* (or persistency) was taken for granted, while the principle of *modification* (*Abänderung*) appeared novel.

\* Translation copyrighted.



lodged in every branch, however remote, of human thought. Everywhere, in history, in philosophy, even in the physical sciences, we hear the watchwords: heredity, adaptation, selection. We speak of the struggle for existence among the heavenly bodies and of the struggle for existence in the world of molecules.

The impetus given by Galileo to scientific thought was marked in every direction; thus, his pupil, Borelli founded the school of exact medicine from whence proceeded, even, distinguished mathematicians. And now Darwinian ideas are similarly animating all provinces of investigation. It is true, nature is not made up of two distinct parts, the inorganic and the organic; nor must these two divisions be treated perforce by totally distinct methods. But nature has many *phases*. Nature is like a thread in an intricate tangle, which must be followed and traced, now from this point and now from that. But we must never fancy, as physiologists have been taught to do by Faraday and J. R. Mayer in a more circumscribed province, that progress in paths once entered upon, is the *sole* condition of enlightenment.

It will devolve upon the specialists of the future to determine the relative stability and productiveness of Darwinian ideas in their several provinces of investigation. But upon this occasion I propose simply to discuss and consider the growth of our knowledge of nature in the light of the theory of evolution. For *knowledge is an expression of organic nature*. (Ideas have thus the properties of living organisms.) And although ideas, as such, can not be treated in every respect as separate and distinct individuals (*gesonderte Lebewesen*), and although every forced comparison is to be avoided, yet, if Darwin has comprehended the true nature of things, the common trend of evolution and transformation is necessarily manifested in ideas also.

I shall here waive the consideration of the fruitful topic of the transmission of ideas or rather the transmission of the aptitude for certain ideas. Nor would it come within my province to discuss psychic evolution in any form, as Spencer and many other Zoo-psychologists have done with more or less success. I shall not enter into a discussion of the struggle for existence and of natural selection among scientific theories. We shall consider here only such processes of transformation as every student can easily observe at work in his own mind.

\* \* \*

The Child of the Forest discovers and follows the trail of the chase with marvellous acuteness. He outwits and overreaches his foes with surpassing cunning. He is perfectly at ease and firmly situated in the sphere of his peculiar experience. But confront him with an unwonted phenomenon; place him face to face with a technical product of modern civiliza-

tion, and he will lapse into impotency and helplessness. Here are facts which he does not comprehend. If he endeavors to grasp their meaning, he misinterprets them. He fancies the moon, when eclipsed, to be tormented by an evil spirit. To his mind a puffing locomotive is a living monster. The letter accompanying a commission with which he is entrusted, having once revealed his thievishness, is in his imagination a conscious being, and he must hide it under a stone, before venturing to commit a fresh trespass. Arithmetic appears to him like the art of the geomancers in the Arabian Nights,—an art which is able to accomplish every imaginable impossibility. And, like Voltaire's "*ingénu*," when placed amid the complexities of our social institutions, he plays, in our opinion, the maddest of pranks.

With the man who has made the achievements of modern science and civilization his own, the case is quite different. He sees the moon pass temporarily into the shadow cast by the earth. He feels in his thoughts the water growing hot in the boiler of the locomotive; he feels also the increase of tension which pushes the piston forward. Where he is not able to trace the direct sequence of things he has recourse to his rule and table of logarithms, which aid and facilitate his thought without predominating over it. Such opinions as he may not concur in, are at any rate known to him, and he understands how to meet in argument those who advance them.

Now, wherein does the difference between these two men consist? The train of thought habitually employed by the first one does not correspond to the facts that he sees. He is surprised and nonplused at every step. But the thoughts of the second man follow events and anticipate them; his thoughts have become adapted and adjusted to the larger field of observation and activity in which he is located; he conceives things as they are. The Indian's sphere of experience, however, is quite different; his bodily organs of sense are in constant activity; he is ever intensely alert and on the watch for his foes; or, his entire attention, and energy, is engaged in procuring sustenance. Now, how can such a creature project his mind into futurity, foresee or prophesy? This is not possible until our fellow-beings have partly relieved us of our concern for existence. It is then that we acquire freedom for observation, and not infrequently too that narrowness of thought which society helps and teaches us to disregard.

If we move for a time, within a fixed circle of phenomena which recur with unvarying uniformity, our thoughts adapt themselves in time to our environment; our ideas unconsciously become the reflex and counterpart of our surroundings. The stone we hold in our hand, when dropped, not only falls to



the ground in reality; it also falls in our thoughts. Iron-filings dart towards a magnet in imagination as well as in fact, and, when thrown into a fire, they grow hot in conception as well.

The impulse to complete mentally a phenomenon which has been but imperfectly observed, has not its origin in the phenomenon itself; of this fact, we are fully sensible. And we well know that it does not lie within the sphere of our volition. It seems to confront us rather as a power and a law imposed from without and controlling both thought and event.

The fact that we are able by the help of this law to prophesy and forecast, merely proves a sameness or uniformity of environment competent to effect a mental adaptation of this kind. The necessity of fulfilment, however, is not contained in this compulsory principle which controls our thoughts; nor is it in any way determined by the possibility of prediction. We are always obliged, in fact, to await the completion of what has been predicted. While errors and departures are constantly discernible, being slight only in provinces of such rigid constancy as for example Astronomy.

In instances where our thoughts follow the connection of events with ease, and in instances where we positively forefeel the course of a phenomenon, it is natural to fancy that the latter is determined by and proceeds perforce in conformity with our thoughts. But the belief in that mysterious agency, termed *causality*, which holds in unison thought and event, is violently shaken when a person first enters a province of inquiry in which he has hitherto had no experience. Take for instance the strange interaction of electric currents and the phenomena of electro-magnets, which seem to defy all the resources of mechanical science. Let him be confronted with such phenomena and he will immediately feel himself forsaken by his power of prediction; he will bring nothing with him into this strange field of events but the hope of soon being able to adapt his thoughts and ideas to the new conditions there presented.

A person constructs from a bone the remaining anatomy of an animal; or from the visible part of a half concealed wing of a butterfly he infers and re-constructs the part actually concealed. He does so with a feeling of highest confidence in the accuracy of his results; and in these processes we find nothing preternatural or transcendent. But when physicists adapt their thoughts and adjust their ideas in conformity with the course of events as to motion and time, we invariably surround their investigations with a metaphysical halo; yet these latter adaptations bear quite the same character as the former, and our only reason for investing them with a metaphysical

garment, perhaps, is the high practical value of the results obtained.

Let us consider for a moment what takes place when the field of observation to which our ideas have been adapted and now conform, becomes enlarged. We had always seen heavy bodies sink, when their support was taken away; we had also seen, perhaps, that heavier bodies descending, force lighter bodies upward. But now, we see a lever in action, and we are suddenly struck with the fact that a lighter body is lifting another of much heavier weight. Our customary train of thought demands its rights; the new and unwonted event likewise demands its rights. From this conflict between thought and event the *problem* issues; from this partial contradiction arises the question "why." By a subsequent adaptation to the enlarged field of observation, the problem disappears, or in other words it is solved. In the instance cited, we must adopt the habit of always considering the amount of mechanical work performed.

The child just awakening into consciousness of the world, knows no problem. The bright flower, the ringing bell, are all new to it; and yet it is surprised at nothing. The out and out Philistine, whose only thoughts lie in the beaten path of his every-day pursuits, likewise has no problems. Everything goes its wonted course, and if perchance a thing go wrong at times, it is at the most a mere object of curiosity and not worth serious consideration. In fact, the question "why" has lost all warrant in relations where we are familiar with every aspect of events. But the capable and talented young man has his head full of problems; he has acquired, to a greater or less degree, a certain habit of thought, and at the same time he is constantly observing what is new and unwonted, and in his case there is no end to the questions "why."

Thus, the factor which most promotes the progress of scientific thought is the gradual enlargement of our field of experience. We scarcely notice events we are accustomed to; the latter do not really acquire an intellectual significance until placed in contrast with something to which we are unaccustomed. Things that at home are passed by unnoticed, delight us when abroad, though they may appear in forms but slightly different. The sun shines with increased radiance, the flowers bloom in brighter colors, our fellow-men accost us with lighter and happier looks. And, returning home, we find the old familiar scenes even more inspiring and suggestive than before.

Every motive that prompts and stimulates us to modify and transform our thoughts, proceeds from what is new, uncommon and not understood. Novelty excites wonder in persons whose fixed habits of thought are shaken and disarranged by what they see. But the element of wonder never lies in the phenom-



enon or event observed; it is to be sought in the person observing. People of the more vigorous mental type aim at once at an *adaptation of thought* which will conform to what they have observed. Thus does Science eventually become the natural foe of the wonderful. The sources of the marvellous are unveiled, and surprise gives way to calm interpretation.

(To be concluded.)

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M. D.

Part XI.

##### HEREDITARY INFLUENCES.

The doctrine of heredity has proved a potent ally of Monism. For, the last four hundred years the progress of mankind has been a fact demonstrated by such unmistakable evidence that the clerical opposition to the principles of the Darwinian hypothesis seemed a rather gratuitous caprice of bigotry. But the truth is that the progressive development of the human race was long thought compatible with the scriptural myth of creation. Civilization was considered a mere outcome of accumulating stores of knowledge, aided perhaps by supernatural interference in favor of orthodox nations, but wholly independent of any general process of organic evolution. The Port Royalists, for instance, distinctly acknowledged the predestined advance of the human race to higher and higher planes of culture, yet withal denied any analogous tendency in the organic constitution of animals, which, indeed, they treated as mere machines, acting upon established and invariable motives of "instinct." The progress from social barbarism to civilization was ascribed exclusively to well-directed educational influences.

The Darwinian theory, however, added a new factor of evolution: The heredity of individual attainments, in other words, the purely physical transmission of moral and mental characteristics, thus subjecting the phenomena of mind to the general laws of animal physiology. In the principles of the "Origin of Species," the exponents of the established creed therefore instinctively recognized the doom of Dualism.

Yet those principles became more and more clearly identified with a universal law of Nature. "If the true theory should ever be announced," says Emerson, "we shall know it by this token: that it will solve many riddles," and the doctrine of evolution by heredity furnished a clew to the solution of enigmas which no other key would unlock.

If animals are a mere variety of marionettes, which "know nothing, desire nothing, and perform their functions in obedience to a blind and automatic con-

trivance of his organism,"\* how shall we explain the indisputable fact that they profit by experience and that the mental modifications of individuals reappear in their progeny? Or, if a child's mind (as even Locke maintained) is a mere *tabula rasa*, a blank leaf, to be inscribed with the records of personal experience and the lessons of education, how is it that, *in spite of education*, the character traits and intellectual tendencies of fathers will reassert themselves in his sons, in sons trained perhaps in the homes of strangers and under social influences totally different from those of their birthland.

The tenet of "primary ideas," or innate beliefs," so long a mere hypothesis of convenience, has been both confirmed and explained by the doctrine of heredity, which makes the mental characteristics of individuals a joint product of personal and ancestral experience. "Primary ideas," in fact, are neither universal nor confined to the sphere of self-evident propositions. Every tribe of the human race, every species of animals, nay, every variety and family of animated beings, may be said to supplement those ideas by hereditary conceptions of their own—conceptions often clearly antedating the possibility of individual experience. The naturalist Spalding tested a private theory of his own by procuring a number of newly-hatched turkeys and depositing them on a piece of carpet in a room where he had secreted a chicken-hawk, apt to resent close confinement by harsh screams. At the first of those screams the little nestlings started to their feet and ran off with every sign of terror, though they could not possibly have known the significance of such sounds from personal experience. Chicks, an hour old, even if hatched by the artificial warmth of an incubator, will follow the call of a mother-hen and toddle off at the approach of a dog or cat. Young wolves, removed from their mother's den during the period of blind infancy and fed by hand for weeks, will nevertheless hush their whining at the approach of footsteps and shrink in terror from the sudden appearance of a human being, though in the next moment the reviving impression of individual experience may overcome the bias of hereditary instinct. In certain cases, though, personal experience fails to counteract the influences of generic tendencies, in other words, hereditary dispositions may assert themselves *in spite of education*. Young beavers permitted to run at large in human dwellings, insist on constructing "dams," by piling up boxes, books, kitchen

\* A theory carried to its extreme consequences in the following characteristic passage: "Dans les chiens, les chats, et les autres animaux, il n'y a ni intelligence ni âme spirituelle comme on l'entend ordinairement. Ils mangent sans plaisir; ils crient sans douleur; ils croissent sans le savoir; ils ne désirent rien; ils ne connaissent rien; et s'ils agissent avec adresse et d'une manière qui marque un trait d'intelligence, c'est que Dieu les a fait (pour les conserver), de telle manière qu'ils évitent, sans le savoir, tout ce qui peut les détruire et qu'ils semblent craindre."—Malebranche: *Méditations Métaphysiques* (1689).



utensils or anything they can move or reduce to a portable condition. They will gnaw off table-legs and drag them along to fortify the walls of their dike, they will rip open mattresses to appropriate bundles of horse-hair, and the frequent demolition of his fabrics will not in the least discourage the constructive enthusiasm of the little architect. No punishment will deter a pet marmot from purloining handkerchiefs and newspapers, and even in the superheated atmosphere of a kitchen he will collect warm bedding-material as if his life depended upon the chance of counteracting the rigors of an Alpine climate. An exactly analogous after-effect of ancestral experience often inspires the penurious monomanias of wealthy misers. In religious liberalism and cosmopolitan tendencies they may have far outgrown the standpoints of their narrow-minded parents, but the deep-rooted habit of economy obstinately resists the modifying influences of new surroundings. They may risk large sums in commercial speculations and disregard expenses in securing the ablest managers of their industrial enterprises, but in their private habits inherited principles prevail, and I know a mill-owner who buys his corn by the train-load and secures the best machinery, regardless of cost, but who nevertheless will wait for half-hours on the platform of a freight-depot in the hope of saving the price of a ticket by joining a gang of laborers in the caboose of a construction-train. He will prowls about the premises of a tobacco-factory to fill his pocket with the gleanings of the rubbish-heaps, and has been known to rummage the waste-baskets of his clerks in the hope of discovering an uncanceled postage-stamp.

The employées of tyrannous masters are apt to seek compensation by tyrannizing their families, and that penchant for an overbearing treatment of subordinates often develops an hereditary habit which explains the aversion of soldiers, sailors, etc., to the discipline of officers promoted from the ranks. "Put a beggar on a horse and he will ride it to death," says an old Irish proverb, and the most inhuman taskmasters of our southern plantation negroes were slaves entrusted with the authority of an overseer. A journalist who investigated the compensation and the habits of London factory-operatives reports that the women employed in two of the largest shirt-factories get only from 10 to 15 shillings a week, but adds that they "prefer the minimum rate to the alternative of having to work under a female overseer, the male taskmasters being so much less despotic." In spite of their intense race-prejudices, Russian soldiers, for similar reasons, prefer foreign officers to their own countrymen, who reconcile their obsequious deference to the caprices of a superior with an arbitrary absolutism in the treatment of their inferiors. "Del Rey

y de la Inquisition calle la Boca," says an old Spanish proverb: "Don't discuss politics and religion." A similar aversion to religious topics of conversation still characterizes our Hebrew fellow-citizens whose forefathers were so often victimized by inquisitorial spies in the guise of freethinkers. Intellectual habits are hereditary to a degree which we rarely realize in this age of universal education. The Intuitionists who believed in the spontaneous development of certain "primary ideas," would be tempted to consider the intuitive recognition of manifold moral and mental axioms a common heirloom of the human race, but might be undeceived in the mission-schools of Africa and Eastern South America. The geometrical principle that "things which are equal to the same thing, are equal to one another," may appear self-evident to the mind of a Caucasian schoolboy, but would require numerous experiments to illustrate even its meaning to the mental apparatus of a juvenile Hottentot. The traveler Burmeister found it difficult to get his Indian page to remember the number of his saddlebags, whenever that number happened to deviate from the exact standard of ten (a quantity internationally familiarized by the decimal arrangement of fingers and toes), and if we shall believe La Condamine, the Yancos of the upper Amazon get hazy in their calculation whenever a sum or product exceeds the maximum of *three*, a number which their vernacular can express only by the paraphrase of *Poettarrorincoar-rac*—"first one and then another and one more."

Experienced teachers notice a difference in the intellectual capacity, not only of different races, but even of the different social subdivisions of the same races and communities. City boys, for instance, are as a rule far more mischievous and mutinous than peasant lads, but in spite of their habitual inattention, they comprehend the axioms of their textbooks with a readiness almost incomprehensible to their rustic schoolmates.

The foreign teachers of our Catholic parish-schools often complain that "American children have so little ear for music," while American workmasters are frequently surprised by the want of mechanical aptitude in a foreign apprentice of otherwise more than average versatility and intelligence. A modicum of ancestral experience aids the attainment of almost every form of accomplishment. New methods of instruction, new doctrines, and even the introduction of new machinery, at first seem to impede the currents of mental habits wont to move in different channels of routine.

"When states of mind, in no respect innate or instinctive," says Stuart Mill, have been frequently repeated, the mind seems to acquire a greatly increased facility of passing into those states; and this increased facility must be owing to some change of a physical



character in the organic constitution of the brain. There is also considerable evidence that such modification can in many cases be transmitted, more or less completely, by inheritance."

Hence also he often repeated experience of reformers and scientific discoverers, who for a fair recognition of their merits have to appeal to the "verdict of posterity," i. e., to the judgment of a generation trained in modes of thought which their forefathers were forced to respect, but declined to adopt.

New truth may be the fruit of laborious research; but less easy to explain is the occasional discovery, as if by intuition, of new facts, or the attainment of phenomenal accomplishments, clearly transcending the range of ancestral experience. The theory of the hereditary origin of intuitions would in such cases seem to be at fault, if the influence of parentage were not occasionally apt to transmit a favorable combination of mental gifts derived from a *double line of ancestors*, as for instance special aptitudes (direction) from the mother's side and unusual mental energy (force) from the father's. How far in such exceptional cases intuitions may surpass the usual results of education is strikingly illustrated by the case of the American peasant boy, Zerah Colburn, who at the early age of eight years began to surprise the arithmeticians of his native village by his feats in the solution of numerical problems. He would repeat the products of five or six different numbers, extract square and cube roots when they wanted him to dig potatoes, or estimate the number of cubic inches of water in the basin of every wayside pond. His monomania at last assumed dimensions that attracted the attention of outsiders, and in 1812, before the completion of his ninth year, he was taken to London, where the mathematician Baily (who at first had doubted the truth of the phenomenal reports) examined him in the presence of several equally skeptical colleagues, with the following results: "He raised any number consisting of one figure progressively to the *tenth* power; giving the results (by actual multiplication, and not by memory) faster than they could be set down in figures by the person appointed to record them. He raised the number 8 successively to the *sixteenth* power; and in naming the last result, which consisted of fifteen figures, he was right in every one. On being asked the square root of 106,929, he answered 327, *before the original number could be written down*. He was then required to find the cube root of 268,336,125; and with equal facility and promptness he replied 645. He was asked how many minutes there are in forty-eight years; and before the question could be written down he replied 25,228,800, and immediately afterwards gave the correct number of seconds.

On being requested to give the factors which would

produce the number 247,483, he immediately named 941 and 263, which are *the only two* numbers from the multiplication of which it would result. On 171,395 being proposed he named  $5 \times 34,279$  and  $83 \times 2065$ . He was then asked to give the factors of 36,083, but immediately replied that it had none, which is really the case, this being a prime number. The number 4,294,967,297 having been given to him, he discovered (as Euler had previously done) that it is not the prime number which Fermat had supposed it to be, but that it is the product of the factors  $6,700,417 \times 641$ .

On being asked to name the square of 999,999 he obtained the amazing result (999,998,000,001) by twice multiplying the square of 37,037 by 27. He then of his own accord multiplied that product by 49, and said that the result (*viz.*, 48,999,902,000,049) was equal to the square of 48,999,951. In the extraction of roots and in the discovery of factors of large numbers, he immediately, or in a very few seconds, gave answers which, according to the ordinary methods, would have required very difficult and laborious calculation (even with the aid of logarithms), while prime numbers cannot be recognized as such by any known rule."

It is a significant circumstance that a prodigy of that special type was evolved in a land of commercial activity and mental arithmeticians, just as the infant virtuoso Mozart was born in a land of music, and the boy poet Goethe in the home of the Minnesingers.

#### PLANTATION FOLK-LORE.

BY L. J. VANCE.

(Continued.)

The story of "De King an eh Ring" (No. XXXI) has found its way into a good many collection of folk-tales; an abridged account of which may be given as follows: Once upon a time a King had three servants, of whom one stole his ring. After trying in vain to discover the thief, the King called in the services of a "conjurer man," who promised to get the ring back within five days; if the conjurer failed he was to lose his head. Four days passed and the 'conjurer man' had made no progress towards finding out the thief. On the morning of the fifth day he first charged one of the servants with the robbery, also the second, and then the third servant. That evening all three came to him and confessed, and begged the 'conjurer man' to clear them from suspicion. He told them to bring a turkey-gobbler. "Eh tek de Ring an eh mix um long corn-flour, an eh poke em een de tukrey-gobbler craw. Den eh mark de bud (bird) so him kin know um gen." He of course tells the King that the ring is in the gobbler, and lo! when the bird was cut open, "sho nuff, was de Ring." The same story may be found in Grimm (No. 98); in Dasent's "Popular Tales from the Norse" of P. Asbjørnsen, Second Series;" "The Charcoal



Burner; in Caballero, "Cuentos," p. 68; in "The Orient and Occident," Vol. I, p. 374; in Crane's "Italian Popular Tales," "Crab," p. 314. The story is evidently of Oriental origin, as would appear from Benfrey's account, *Pantschontautra*, Leipzig, 1859. Erster Theil, p. 374.

No. XXXII, "Buh Lion, Buh Rabbit, Buh Fox, an Buh Rocoon," is one of those stories which like the course of empire westward takes its way. Whether it crossed the Atlantic in first cabin, in steerage, or in slave chains, we do not know. The first time that we came across it was, when with lexicon in one hand and with the Greek text in the other, we laboriously translated from the interesting and lively pages of Herodotus the story of the Treasures of the Egyptian King Rhampsinitos. Many of us are familiar with the story told by Pausanias of the two architects, Agamedes and Trophonius, who built the treasury of Hyricus; how they knew the secret opening by which one of them could enter and plunder the King's vaults; how they did so until the King set a trap for the robbers; how one of them was entrapped, and his head cut off by his companion so that the body might not be recognized; how the King ordered that the corpse be taken through the streets, and that any person found making any sign of grief should be arrested; how the body was taken to the scaffold by the soldiers, who, becoming intoxicated, allowed the corpse to be taken away; how, finally, the King in his admiration for cunning and ingenuity gave his daughter to the other thief. Now, just change the name of the King into Buh Lion, and the names of the two thieves into Buh Coon and Buh Fox—there you have the whole negro story. For parallels we may cite the Hindu legend of Karpas and Gata (see Cox's "Mythology of the Aryan Nations," vol. I, chap. VIII); the Highland story of 'The Shifty Lad' (Campbell's "Tales of the West Highlands"); the Sicilian story of "The Mason and His Son," (Crane's "Italian Popular Tales," page 163). For other references, see Ralston's Introduction to Schieffner's "Tibetan Tales," page XLVII. There is also an Italian book on *La Leggenda del Tesoro di Rampsinite*, which we have not seen.

One of the incidents in No. XXXIII ("Buh Rabbit, Buh Wolf an de Porpus") tells about a pulling match between the Wolf and the Porpus. The Rabbit says: "Leh we hab some fun, an see who kin pull de strongis; Buh Porpus genst me an Buh Wolf." So he takes a long grape vine and ties one end of it round the Porpus's head, and the other end he fastens round the Wolf's body. As the Rabbit gives the word to 'pull,' he himself slips out of the vine. The Porpus dives down and, of course, pulls Buh Wolf after him, "an drown um." In "Uncle Remus," the contest is between Brer Terrapin and Brer Bear. The wily

Terrapin dives down and fastens his end of Miss Meadow's bed-cord to a big root. The Bear soon gives up pulling against such an antagonist. (No. XXVI, p. III: "Mr. Terrapin Shows His Strength.") In Prof. Hartt's "Amazonian Tortoise Myths," ("How the Tortoise provoked a contest of strength between the Tapir and the Whale," page 20), the Tortoise ties one end of a long root to the Tapir and the other to the Whale; the two, ignorant of the Tortoise's doing, pull away until they give up exhausted. See also a version in Mr. Smith's "Brazil, The Amazons," etc., p. 545.

No. XXXIV, "De Debble an May Belle," belongs to the "Bluebeard" class of popular stories. A story of this class usually tells of two sisters who are married in turn and killed by their husband, because they open the forbidden chamber. The third, or youngest sister, although she opens the forbidden door, manages to escape and restores her dead sisters to life. In the negro story, "de Debble," dressed up as a fine gentleman, comes to woo May Belle, who marries him and is taken to a splendid house. Of course, she looks into the closet and sees "tree nong ooman duh heng up long dem neck." As the story must be familiar with every reader, we forbear to give any further details. See versions by Grimm of "The Feather Bird," and "The Robber Bridegroom," etc., etc.

But there is one incident in the negro story which cannot be passed over. When May Belle is ready to run away, the horse tells her to take "four big nails wuh day on de mantle-piece een de Debble room." The Devil starts in hot pursuit after May Belle who drops one of the nails in the road, "an right off one big bank er san riz up clean cross de road. Wen night come on dem drap anrurr nail, middle night anrurr, an es de sun duh rise dem drap de las one. Ebry time de nail drap, de big bank er san rise up an shet up de road." These incidents of the magic flight and magic obstacles are so numerous in *Märchen* all over the world, that they have been made subject of special study by folk-lorists. See *Scribner's Magazine* for June, 1887. Mr. Lang's, "Custom and Myth," page 92; Prof. Crane's "Italian Popular Tales," note 11 to chap. II, page 335. Among some of the incidents are: the throwing behind of a comb which changes into a thicket; the throwing behind of three balls of yarn which become in turn a mountain, a mountain covered with sharp nails, and a mighty torrent (Sicilian version); the casting behind of a black-head dress which is turned into grapes, of a close-toothed comb which is turned into bamboo sprouts, (Japanese version). Several Zulu versions may be found in Callaway's Zulu tales; in Ralston's Russian tales; in Campbell's West Highland tales. The writer in *Scribner's Magazine* cites a modern variant current among the American Indians.



Nor can the opening paragraph of this story of "De Debble an May Belle" be passed over. The paragraph is as follows: "De Debble, him kin tek all sorter shape fuh cahr out him plan an fool people. Sometime eh mek isselt inter wolf fuh kill you sheep. Narruh time eh tek de shape er alligator fuh worry you duck an goose. Den eh look lucker white deer, an eh fly tru de wood, dout mek no noise, fuh skade people duh walk long de big road. Den eh come same lucker Owl, an eh holler down you chimblly an eh tariffy ebrhybody wen dem duh tun flour een de pot. Den wen you sick, eh gone censerider you lucker a wurrum, an eh gie you all sorter misry. Den gen, eh kin tek de shape er man, en pass isselt off fur great gentleman long de lady." (P. 82.) Now, we have called attention to this description, because the negro attributes the same powers to the Devil that savages ascribe to the "Medicine-Man." According to Dr. Bleek the Bushmen believe that their sorcerers "assume the form of beasts and jackals." Among the Mayas of Central America, sorcerers could "transform themselves into dogs, pigs and other animals; their glance was death to a victim." Indeed, the belief in transformation of sorcerers into animals, and their power to work harm under such a guise is practically universal among savages who have attained no higher degree of culture than myth-making negroes. The belief, as Mr. Lang and Mr. Taylor have shown, is the natural result of savage ideas.\*

The next negro story that we take is that of "De ole man an de Coon." (No. XXXV.) The story is about an "ole nigger bin know ebryingt bout ebryingt." His master makes a wager with one of his guests that the latter need not ask his smart servant any question, but that the "ole nigger" would answer it correctly. The guest gets a coon, has it headed up tightly in a barrel, and after sending for the "ole nigger" asks what is in the inside. He inspects the barrel, and finally seeing that he must fail to answer correctly, says: "Mossa, hoon (you) done head de ole coon dis time." At this happy hit out of his perplexity, the company break out into a laugh, "an gie de ole man big praise." If any one wishes to see how such an incident may be used by a modern novelist, let him read Charles Reade's "Born to Good Luck," in *Harper's Magazine*, July, 1883. By the way, Patrick O'Rafferty in Reade's Irish Story goes through nearly the same adventures that the "charcoal-burner" does in the Norse Story. (See Dasent's translation of Asbjörnsen's *Ny Samling*; second series, p. 139).

In addition to parallels already noted as common to "Negro Myths" and Uncle Remus," we call attention to the following: No. XXXIX, "Buh Rabbit, Buh Wolf, an de Holler Tree"; No. XLI, "Buh Rabbit,

Buh Fox, an de Fisherman"; No. XLIII, "Buh Rabbit, Buh Wolf, De Dog, an de Goose"; and No. L, "Buh Roccoon an Buh Possum"—these all contain incidents more or less similar to stories told by Uncle Remus.

Finally, we direct attention to No. LVI, "De ole King and de Noug King." The frame-work of this story is of Oriental origin. The negro narrator makes no pretense of adapting the story to local color and scenery, but he has simply followed the authorized version found current among many Western Folk. The same applies to the story of "De Fiddler, Buh Tiger, an Buh Bear" (No. LV). This Fable, although not of Oriental origin, came from the East, and has finally found its way into a collection of "Negro Myths."

Yet one word as to the form of these Negro Fables. The early animal stories were doubtless without any point or moral. But in hands of Æsop and his successors the fable has come to have a twofold purpose—amusement and instruction. As Phædrus, the well-known and direct successor of Æsop, puts it:

*"Duplex libelli dos est: quod risum movet,  
Et quod prudenti vitam consilio monet."*

Thus it comes about that the fable-making negro is quite a philosopher in a homely fashion. Some of the morals appended to these negro fables are full of wit and wisdom. Thus "de man wuh trus in esselt," says Daddy Sanday, "guine fail: wile dem dat wait topper de Lord will had perwision mek fur um." Again, "People wuh wunt mek up dem mine in time dem mean fuh do guine git left." Once more, "Eh fine eh yent deman wid de bigges belly wuh kin eat de longes." Old Daddy Smarts' advice is, "When ebbey you farruh (father) gie anything, tek um, an tenky; you suttently will fine out dat wuh eh gie you will do you no harm, but eh will fetch good luck ter you." The parable of the Fowl-Hawk who "Lord er no lord, manage fuh fine all him want fuh eat," has a good deal of the flavor of the darky's sense of rewards and punishments in this skeptical world.

Here we conclude, having traced parallels to "Negro Myths" almost all over the world, "even among barbarians." We have seen that some of the stories told by Uncle Remus and by Daddy Jack were heard by Prof. Hartt and by Mr. Smith on the Amazons. We have found Negro Myths that turned out after all to be only European *Märchen* in dark disguise. We have noted negro fables that take us back to the reign of the Egyptian King Ramsinots. We have seen that a fable in the mouth of a Negro or a Norse Peasant may become a well-written novel in the hands of a Charles Reade.\* Lastly, we have found that Negro,

\* Myth, Ritual and Religion, vol. 2, p. 119.

\* Both Miss Thackeray and Dr. Weir Mitchell have used incidents of folk stories in their novels.



Hottentot, Greek, and Hindoo peasant are all in a tale. Surely to those who read between the lines all these things have more than a surface meaning.

Now, the chief problems raised by these Negro Myths and *Märchen* are: (1) What is the origin of fables and folk stories? (2) Where was the home, or centre from which they originally started? (3) How is it, that they so closely resemble each other in plot and arrangement and are so widely diffused all over the globe?

As to the first question we have already made plain what our answer might be. Holding (with Mr. Lang) that the presence of talking and rational beasts, and the occurrence of metamorphosis and magic in the *Märchen* as well as in the higher myths were evolved out of the same condition of human fancy, we can in a measure understand why animal stories should be so much in vogue among the simple, untutored plantation negroes. Again, we have ventured to dissent from the theory that *Märchen* are exclusively Aryan, or that they arose from a "disease of language." So too, we have given reasons for objecting to the theory, that *Märchen* are the *detritus* or youngest and latest form of Myths. On the contrary, many negro and European *Märchen* carry us back to a time when man was not human, but savage. For the absurd, the strange, or the miraculous the modern European *Märchen* may well hold its place beside Hottentot or any other mythology. Our negro tales would seem to stand midway between the Myths of early civilizations and the stories of the modern European, Asiatic, and Indian peasantry. Yet, in default of material, it is not necessary to pass upon the *origin* of popular tales. But, of a negro myth, I am more and more inclined to say that it is.

"A history of departed things,  
Or a mere fiction of what never was."

Hence, from this point of view, negro fables and folk-lore is only interesting as further evidence of the evolution of modern culture from the beliefs and usages of simple-minded folk.

But it may be asked, where did fables and stories, such as we find among the Southern negroes, start? There is much to be said in support of Theodore Benfrey's theory that popular tales were brought into Europe within historical times from India, by oral transmission and literary vehicles, such as translations of Oriental story-books.\* Yet the theory fails to account for those *Märchen*, or popular tales, which are older than historic India, and which, when found among such distant peoples as the Japanese, Scotch, Zulus, Australians,† and North American Indians,

could hardly have travelled from *historic* India. Thus, Mr. Lang has taken the Egyptian tale of 'The Two Brothers,' written down on a papyrus in the time of Rameses II, and has shown that it has points in common with *Märchen* from Hungary, Russia, France, Norway, Serbia, Hesse, etc. He has broken this Egyptian tale into fourteen different incidents, or story atoms, each one of which has parallels in the popular tales of many countries.

We now reach the third and really important problem. How have *Märchen* been so widely diffused all over the globe? What was the time and the method of their transmission? These are the questions put by the Sphinx of popular tales. We may agree with Prof. Crane that the stories found in the Southern States and in Brazil were brought over from Africa by slaves. Yet, this only set the difficulty back a step farther. Where did the negroes in Africa get their fables and *Märchen*? We can hardly suppose that they borrowed *all* of their tales from European settlers. On the other hand, there can be but little doubt that some of the "Negro Myths" in Mr. Jones's volume were borrowed recently from the whites.\* Thus the obscurity in which the origin and diffusion of negro and all other *Märchen* are hidden seems to be inevitable. We only know that no definite bounds can be set to the popular story. The travels of the Wandering Jew are nothing as compared with the migrations of *Märchen* over sea and land, from continent to continent. "What remains to do is," says Mr. Lang, "to confess our ignorance of the original centre of the *Märchen* and inability to decide dogmatically which stories must have been invented only once for all, and which may have come together by the mere blending of the universal elements of imagination. It is only certain that no limit can be put to a story's power of flight *per ora virum*. It may wander wherever merchants wander, wherever captives are dragged, wherever slaves are sold, wherever the custom of exogamy commands the choice of alien wives. Thus the story flits through the whole race and over the whole world."

Finally, we cannot take leave of this volume of "Negro Myths" without saying that the author has shown himself "a master in the difficult art of collecting popular tales." It is now seven and fifty years since Carlyle asked, "Where are now Our People's Books!" Thanks to patient and diligent folk-lorists like Mr. Jones, the question is now in a fair way of being answered.

#### CLASSICAL AND ROMANTIC ART.

Many Scientists and, to a great extent, also business people look upon art and poetry with a certain contempt. There are even philosophers who have no

\*See *The Disciplina Clericalis*; *The Gesta Romanorum*; *The Seven Wise Masters*, etc., etc.

†The various translations of the *Pantschatantra* are given in Max Müller's "Chips," Vol. IV, page 165.

\*The stories of "De New Nigger an 'ch Mossa" and "De Single Ball" (No. XLIX) are modern inventions or yarns.



room for art in their systems or consider it as useless play—as a sport which properly should not exist, as it does not serve any real purpose.

This view of the subject is entirely erroneous and does not agree with the facts of real life. Art, and especially poetry, serve a real and good purpose in life, and are, almost as much as religious impulses, exceedingly strong. Religious sentiment induces men to sacrifice their lives for an idea, and poetical enthusiasm in extraordinary cases lacks very little of attaining a similar power.

Religion and patriotism have no better ally than poetry. When the Spartans waged a luckless war with the Messenians, they sent to the oracle at Delphi and requested help from their patron God, the God of light and of poetry. Apollo sent from Athens a lame school-master as the legend tells. But this man of seemingly little promise proved a great power,—for he was poet. Fragments of his verses are still preserved. Especially one of his hexameters was handed down to this day.

τηδ' ἀνέμειναι γὰρ καλὸν ἐν προμήχουσιν πεισθαι.

'Tis sweet to die in battle front  
For fatherland and home.

This verse has been repeated in Latin by Horace:

Dulce et decorum est  
Pro patria mori.

By the way, the Roman poet did not act accordingly. When in battle he preferred life to the sweetness of a patriotic death and ran away in order not to fight another day, but soon afterwards to join peacefully the victorious party.

The famous verse of Tyrtæus became the leading motto of all the patriotic battle hymns in later ages, which inspired thousands and hundred thousands of warriors to sacrifice their lives for their country. To a great extent the sacrifices must be accounted for by a love of home and freedom. But these sentiments, no doubt, were often kindled by the glowing flame of poetry.

The influence of poetry in almost all domains of human life can not be doubted. It is the very soul of our emotional aspirations in love, in patriotism, in religion. Poetry possesses a power directive of human passions, which may and often does lead to the elevation of human souls. Poetry is the natural vehicle for ideals. An ideal is a conception or idea of such a state of things as does not yet exist, but the realization of which is fostered in our aspiration. Poetry contains in the crystalized shape of verse certain ideas which appeal to our hearts and stir our emotions as well as our sympathies.

The harmony which obtains in versified speech makes it more impressive, so as to enter more easily into and to remain better fixed in our brains. In this way certain ideas poetically formed and conveyed, may

attain such a wonderful power as to make people stake their lives for their realization, and accordingly it is not strange that poetry was credited with potentialities and qualities that are superhuman.

Poetry in a certain sense is indeed superhuman, although it is not supernatural. The ideas often take hold of the poet, they arise in him and he seems aware of the fact that it is not he who governs them, but that they govern him.

Poetry is a formative power by which the views of whole nations are built up. 'Homer and Hesiod,' as an old verse declares, 'have given Greece her gods.' They shaped the Greek myths and ideals and exercised a decisive influence upon the literature, religion, ethics and politics of their nation. Goethe's and Schiller's poetry told more powerfully on the formation of modern German thought than the works of all scientists and philosophers. Kant's influence on the masses is greatly due to Schiller, who confessed himself a disciple of the great thinker of Königsberg and allowed himself to be swayed by his philosophy.

If poetry is not sound, its influence is harmful. It is a fact that, after Goethe's *Werther* was published and eagerly read in Germany, suicides increased to an annual average never before reached; and this was due to the weakening sentimentality of this one novel, which in spite of many great features is morbid to the root.

Woe to the nation whose poetry is rotten. If poetry has grown immoral, it is the worst symptom of a speedy decay.

Germany's literature was full of promise in a time when her political prospects were extremely poor and almost hopeless. But those who saw more than the outside of things predicted her future glory. The German oak was stripped of her leaves, but the sap was sound and thriving.

There are wonderful prophesies in the German folk-lore legends, of the renewal of the German Empire and the resurrection of Frederic Barbarossa. There are prophetic poems by Rückert, Geibel and others which have been fulfilled beyond expectation almost literally. There is a passage in Heine's works, published in the *Salon*, originally written in French and for the French, in which the German poet tells his friends in France what the German nation will be like, if she should again be provoked to fight for her homes, her liberty and her ideals. If she is roused, Heine said, her energy and warlike spirit will swoop down upon her enemy like a thunderstorm.

The poet is prophetic, not only because the finer nerves of his mind are quicker to understand the signs of his time, but also because his poetry is going to tell on the development of the nation. It is a strange fact, that Schiller's dramas severally forboded the events



of his time. He wrote "*Die Räuber*" characterizing the rebellious spirit of an entire overthrow of society, and the French Revolution ensued. Then he wrote *Fiesco*, which depicted the powerful mind of a princely usurper his daring boldness and final failure and a figure like Napoleon appeared in Europe. But after *Fiesco*, he wrote *Wilhelm Tell*, the drama of national fraternity and liberty, and *Die Jungfrau von Orleans* in which he praises the marvelous delivery of a nation from a foreign yoke. Also these dramas prophetically proclaimed the suppression and the rising of the German nation, her wars in 1813-1815 and even the foundation of the Empire in 1870.

Such verses as:

Seid einig, einig, einig!

and:

So lasst uns sein Ein einig Volk von Brüdern  
In keiner Noth uns trennen und Gefahr.

(Let us unite like brothers, as one nation  
That undivided stands in time of danger.)

exercised an incalculable influence on the German mind, which as long as this influence lasts will keep her strong and healthy and which is of greater import than her bayonets and guns.

Washington Irving has somewhere said that it is easier to fight many battles than produce one national poem. And certainly the procreation of a healthy national literature, impregnated with great ideals and a moral spirit, is the most essential desideratum for the future welfare, growth and progress of our nation. America is famous for her wealth and the American often boasts of it. Wealth is a good thing in good hands but it is a dangerous and doubtful boon in the hands of indeliberate persons, it is certain ruin and poison in the hands of libertines and slaves of passion. More important than wealth is the store of ideas, especially those ideas which are ideals, those which serve to lead us onward on the path of progress.

In art and poetry we meet with different conceptions similar to those in religion and philosophy, although they appear under other names. There are factions and partisans also in the domain of artistic taste, and the most prominent oppositions are the classical and romantic schools. These Whigs and Tories of poetry fight with no less zeal than political parties. The contrast is obvious and striking and you can hear classical and romantic art spoken of everywhere; in music and in painting, in sculpture and in architecture the same opposition is noticeable.

What classical and romantic mean has been interpreted very differently and often correctly, but its relation to philosophy has never been sufficiently explained. Classical, it is commonly said, is that conception of art which takes the Greeks of old as a standard, but the romantic does not acknowledge either their superiority or their taste. Classical au-

thors acknowledge *rule* in the domain of art, romantic authors from a matter of principle banish rules and judge products of art from the *effect* produced. Classical authors on the contrary have often shown a certain contempt for effect and think it below their dignity to stoop to popular taste for the sake of effect. Romanticism had always a hankering after that kind of poetry which is to be met with so frequently in the Romance nations that are prominently good Roman Catholics. Accordingly some literary writers of protestant Germany identified both, declaring that Romanticism is a return or at least the desire of returning to Catholicism. And it is true that many Authors of the Romantic School in Germany turned Roman Catholics. Nevertheless Romanticism has only a kinship to Roman Catholicism, but should not be identified with it. This may be proved by the fact that Victor Hugo the head of the Romantic School in France was bitterly opposed to the Roman Church.

Among classic schools we must carefully distinguish between pseudo-classic and real classic authors. The Greeks must be recognized as that nation who naturally produced the classic taste for poetry as well as art in general. Corneille, Racine and Voltaire under the reign of Louis XIV and Louis XV of France were the first who attempted to establish classical taste in modern poetry. But they must be designated as pseudo-classic; they were imitators of the Greek taste as it had been codified by Aristotle. They did not understand the principle of classic art; they applied Aristotle's rules, but failed to recognize the spirit of Greek poetry.

True classic poetry was produced in Germany when Klopstock began what Goethe, Schiller and Lessing carried into effect with the grandest perfection ever realized in modern literature. Beethoven's appearance at about the same time was no incidental coincidence among these German aspirers. The classic spirit of Greek antiquity was revived and resuscitated. Theirs was no slavish imitation of the Greeks; they like the Greeks and like Shakespeare, whom they recognized as the model and standard of dramatic poetry just as much as Sophocles, imitated nature. But they did not imitate nature in the sense of Zola and the modern naturalists of France according to whom the dirt of nature is privileged with special attention. Their imitation is an imitation of nature as a whole, as one great entirety, as a Cosmos, which in its laws is one and the same throughout. Their poetry is permeated by the same unity and unison which penetrates the universe. Thus they represent in art the Ethical law of justice which rules impartially, meting out to men the fates they shaped for themselves. And in the highest form of poetry in the tragedy, this justice bestows victory upon the idea



which is represented in its hero. The hero dies, he sacrifices his life for what is greater than himself, for his ideal. He is conquered, the individual man with his faults and imperfections perishes, but his ideal is triumphant.

The classical principles are those of monism, while romantic art is dualistic. Classic art bears the features of serene and majestic truth, of simplicity, of reality; it is lucid and intelligible. Romantic art is artificial, complex, unreal and fictitious; it is obscure, hazy and mystic. Classic art has a high purpose, its aim is holy to the artist, his art is a religion to him. Romantic art attempts to fly from this world into a beyond, it is a play of fiction, a dream. Either the artist considers art as a sport, a fictitious, unreal fancy or if he is serious, he usually is a fanatic and his poetry is not so much a religion as a superstition.

Romantic poets and artists have biased our popular views to such an extent that they succeeded to implant in the popular meaning of the word "art and poetry" the idea of romanticism, that of fictitiousness. It is for this reason that art and poetry are characterized as a 'useless and superfluous exercise of human faculties' (as Spencer says) and that it is to be compared to sport and its value measured according to its complicity. Art and poetry are so far from being superfluous and useless that they are the most important treasures of the human race, for they contain the intellectual, the spiritual and emotional wealth of human ideas, not of single thinkers but of whole nations, in a popular and harmonious form so that they can easily be communicated even to the larger, broader and less educated masses.

Goethe, Schiller and Lessing did much to enhance and advance the idea of monism. Their poetry was the bud from which the monistic philosophy was the full grown fruit.

Classicism and Romanticism are not confined to Art. Religion also is either classical or romantic; it is either based upon clear and definable principles or upon a hazy mysticism. If Religion is not in agreement with science, it is founded upon the brittle basis of superstition. If it is in contradiction to a unitary conception of the universe, it will develop that world-despising dualism whose ideal is the oppression of nature and of all that is natural in us.

Monism in the province of philosophy means conspicuous simplicity. It is the systematic and clear conception of an intelligible reality. In opposition to the diverse dualistic conceptions of the universe in their romantic, phantastic, supernatural, or mystic garbs, monism is the classical philosophy. P. C.

Such as are thy habitual thoughts, such also will be the character of thy mind; for the soul is dyed by the thoughts.

—M. Aurelius Antoninus.

## BOOK REVIEWS.

The *Writer* for July is well worthy of perusal even to those who are not practical literary workers. The magazine contains interesting gossip about authors and literary methods. It gives helpful suggestions and hints upon all matters connected with the journalistic profession. The department of "Queries" is open to correspondents, and all questions relating to literary topics are answered with accuracy and fulness. The magazine appears monthly; edited by William H. Hill and Robert Luce, P. O. Box 1905, Boston, Mass.: terms One Dollar per annum. We recommend the publication to all who wish to attain correctness and proficiency in journalistic methods.

The *Art Amateur* for July gives us a group of green ferns as its frontispiece, refreshing to the eye in comparison with the high colored pictures of the preceding months. The number is an interesting one. It contains many good designs and is especially full in instructions for painting on China Ware. The leading article is headed by a portrait of Benjamin Constant, a French artist "who is said to be best known in this country by his highly decorated canvasses of black eyed houris swathed in bright-hued fabrics of richly contrasted textures luxuriously ensconced between downy cushions in gorgeous harems, all vacuously handsome and uniformly busy in doing nothing at all." Mr. Constant looks young and healthy, and it is to be hoped when he comes to visit us next fall as is promised, he will find better subjects to paint, and put some life and thought into his work. The *Art Amateur* fights the duty on foreign pictures bravely. The artists themselves take manly ground of desiring instruction from Europe rather than protection. Grela gives an interesting sketch of a young artist who has achieved honorable success in Boston, the Bavarian Ignaz Marcus Gaugengigl. In an article on posing for a portrait is an admirable wood cut from a portrait by Ingres. The subject must have been an excellent rich bourgeois of Louis Phillipp's time. More attention is given to Landscape art in this number than is usual. The designs are very good, especially some for a set of dishes for fish, and some mouldings. The *Art Amateur* should be a welcome guest in a summer home, for it furnishes food for thought neither exciting nor exhausting, and helps in those pleasant fancy occupations better suited to the languor of summer than the brainy vigor of winter airs.

## NOTES.

*Life-Lore*, a new English monthly, has made its first appearance.

French women have started a periodical *La Revue Scientifique des Femmes*, to be edited by women only.

Mr. Carl Schurz will soon publish in the *Forum* an essay on Prince Bismarck and the influence of his politics on Europe.

The Polytechnic Society of Chicago provides free Sunday lectures on moral and intellectual topics of popular interest. The subjects will embrace the whole field of Art, Science, Music, Literature, Moral Philosophy, and Social welfare. The programme of the course says the proceedings will be made attractive by vocal and instrumental music, by pictures, and by such other refined agencies as will purify the taste, and at the same time cultivate the mind. All lectures will be free to the public. They will be delivered at 10:45 A. M. on every Sunday of July and August, and will treat successively of the following subjects: "Education," "Trees," "Life, What is it?" "Strikes and Strikers," "Success in Life and its Sources," "Demonology and Witchcraft," "The Ideal State," "Respiration." The society meets at 158 Twenty-fifth Street, corner Indiana Avenue.



Dr. Felix L. Oswald's series of essays *The Bible of Nature or the Principles of Secularism*, which appeared in *The Truth Seeker*, are now republished in book form.

Since Goethe's time Weimar has been the home of the dramatic muse in Germany. The stage of the ducal residence is unrivaled in the world for artistic performance. We are apprised of a new publication in Weimar, *Dramaturgische Blätter*, whose object will be a discussion of dramatic art.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XIX.—Continued.

It was a long struggle between life and death, but life was victorious. Her first impression, when she awoke as from a painless slumber, was the rustling of a black dress, and the large curl of Mrs. Struvelius, who had popped her head through the closed curtains, and was gazing sorrowfully on her with her great grey eyes. She gently called her husband by name, and the next moment he was kneeling by her bed, covering her hand with kisses; and the strong man had so completely lost all self-control that he wept convulsively. She laid her hand on his head, stroked the matted hair, and said to him, gently: "Felix, my love, I will live."

There followed now a time of great weakness and slow convalescence; she had many an hour of helpless depression, but withal a faint smile would play at times over her thin, pale lips.

Spring had come. The buds had not all been destroyed by the frost of the previous night, and the birds twittered before her windows. Ilse was deeply moved to see what a good nurse her husband was,—how adroitly he gave her medicine and food, and would scarcely suffer anyone to take his place by her bedside; he stubbornly refused to take a few hours' sleep in the night, till she herself begged him to do so, and then he could not resist. She learned from Laura that he had been in great distress of mind, and when she was at the worst had been quite distracted and moody, and angry with every one. He had sat day and night by her bedside, so that it was wonderful how he had been able to endure it. "The physician was unable to manage him," said Laura; "but I found the right way, for I threatened him seriously that I would complain to you of his obstinacy. Then he consented to my taking his place for a few hours, and at last Mrs. Struvelius also, but unwillingly, because he maintained that her dress rustled too much.

Laura herself showed how devoted was her love; she was always on the spot, hovering noiselessly about the sick-bed like a bird; she would sit motionless for hours, and when Ilse opened her eyes, and her strength was a little restored, she had always something pleasant to tell her. She informed her that Mrs. Struvelius

had come on the second day, and, after making a little speech to the Professor, in which she solemnly claimed the right of a friend, she seated herself on the other side of the bed. He, however, had not listened to what she said, and had suddenly started and asked who she was, and what she wanted there. She had answered him quietly that she was Flaminia Struvelius, and that her heart gave her a right to be there; thereupon she repeated her argument, and at last he gave in. "Her husband, too, has been here," added Laura, cautiously. "Just when you were at the worst, he rushed up to your husband, who shook hands with him, but, between ourselves, I do not think he knew him. Then," related Laura, "that absurd fellow, the Doctor, came the very first evening, with a blanket and a tin coffee-machine, and declared he would watch also. As he could not be allowed in the sick-room, he placed himself with his tin apparatus in the Professor's room; the Professor took care of you, and the Doctor took care of the Professor." Ilse drew Laura's head down to her, and whispered in her ear, "and sister Laura took care of the Doctor." Upon this Laura kissed her, but shook her head vehemently. "He was not troublesome, at any rate," she continued; "he kept very quiet, and he was useful as a Cerberus to keep away the visitors and dismiss the many inquirers. This he did faithfully. If it were possible for you to see him, I believe it would give him great pleasure."

Ilse nodded. "Let him come in." The Doctor came; Ilse stretched out her hand towards him, and felt from the warm pressure, and from the emotion on his countenance, that the learned confidant of her beloved husband, on whose approbation she had not always counted, was a true friend. Ilse found also that other gentlemen pressed to her bedside.

"If the wife of my colleague will give me audience, I beg to apply for admittance," said a cheerful voice, outside.

"Come in, Professor Raschke," cried Ilse, from her bed.

"There she is," exclaimed he, louder than is usual in a sick-room, "returned to the glad light after a dangerous crisis."

"What are the souls of animals doing, dear Professor?" asked Ilse.

"They are eating the leaves in the adjacent woods," answered Raschke; "there have been numerous lady-birds this year; see, there is one flying about the medicine bottle; I fear it has used me as a stage-coach to come in to visit you. The trees stand like brooms, and the poultry are so fat that all prejudices concerning the enjoyment of these fellow-creatures are quite set aside. I count the days until the happy moment

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arrives when my friend will follow me to give evidence of my improvement."

It was a slow recovery, but accompanied by abundant feelings of comfort; for fate grants to convalescents, as a compensation for danger and suffering, to see all around them, free from the dust of the work-a-day world, in pure outlines and fresh brilliancy. Ilse now felt this mild poetry of the sick-bed, when she held out her hand to the honest Gabriel, which he kissed, holding his handkerchief to his eyes, whilst the Professor extolled his devoted service. She felt this pleasure also when going down into the garden, supported by Laura's arm. Mr. Hummel advanced to her respectfully, in his best coat, with his hair brushed down and his defiant eyes softened almost into a mild expression, and behind him followed slowly his dog Spitehahn, his head also bent in unwilling respect. When Mr. Hummel had offered his homage, he said, sympathisingly: "If you should ever wish for a little quiet exercise, I beg of you to make use of my boat at your pleasure." This was the greatest favor that Mr. Hummel could show, for he did not credit the inhabitants of the neighborhood in which he lived with any of the qualifications which are necessary to make aquatic excursions. He was undoubtedly right when he called a voyage in his boat a quiet amusement; for this season the boat had mostly rested upon bottom on account of the shallowness of the water and the greatest amusement that it could offer was to stretch out the hands to both banks, and tear up a tuft of grass with each.

When Ilse could sit in her room again, it often happened that the door opened gently, her husband entered, kissed her, and then returned with a light heart to his books. When she saw his tender anxiety, and his happiness in her recovery, and in again having her near him, she no longer doubted his love, and felt that she ought no longer to be anxious about what he thought of the life and passing away of individuals and of nations.

#### CHAPTER XX.

##### A COURT MATTER.

Among the inquiries after the Professor's wife during her illness, there was one made by a stranger. Gabriel excited a little astonishment in the household when he mentioned: "Once, as I was running to the apothecary, a man of refined appearance was standing in the street talking with Dorchen. Dorchen called to me, and the man made inquiries concerning everything, and your illness seemed very inopportune to him."

"Did you ask his name?"

"He would not give it. He was from your part of the country, and had only made inquiries through the town."

"Perhaps it was some one from Rossau," said Ilse, annoyed. "I hope he has not made father anxious by his talk."

Gabriel shook his head. "He meant something by it; he tried to find out everything about the house, and asked impudent questions that I would not answer. As he had a crafty look, I followed him to the nearest inn, and the waiter told me that he was the chamberlain of a Prince." Gabriel mentioned the name.

"That is our Prince!" cried Ilse; "what can make him take such interest in me?"

"The man wished to take some news home," replied her husband. "He was among the retinue on the hunting expedition last year, and it was kindly meant."

This answer quieted Gabriel, and Ilse, much pleased, said: "It is so nice when one's Prince takes such interest in his children who are in trouble far from home."

But there was some foundation withal for Gabriel's shaking his head; the inquiries did signify something.

Behind the buildings of a country farm-house, a young lady could be seen, tying up the wild flowers of the meadow in a large bouquet; a ball of blue yarn rolled in her lap whenever she added a fresh handful of flowers. A youth was running about in the deep grass before her, busily engaged in collecting flowers, placing them in order and arranging them according to color for the nosegay-maker. It was evident that the youth and young lady were brother and sister from the marked family likeness of both countenances, and the rich walking-dress left no doubt that they had not blossomed amidst the clover and camomile of the soil, even though the horses' heads and the galoon-trimmed hats of their attendants had not been visible through a gap between the barns.

"You will never finish your bouquet, Siddy," said the young man, incredulously, to the lady, as she awkwardly tried to knot the broken thread.

"If the thread were only stronger!" cried the busy maiden; "do knot it for me!" But it turned out that the young gentleman was not more expert himself.

"Look, Benno, how beautiful the bouquet will be,—that was my idea."

"It is all much too loose," retorted the young man.

"It is good enough for the first time," replied Siddy; "there, see my hands, how sweet they smell." She showed the blue points of her little fingers, holding them up to his face; and as he good-humoredly sniffed at them, she playfully rapped him on the nose. "I have enough of the red flowers," she continued,



again occupied with the nosegay; "now I must have one more circle of white."

"What kind of white?"

"If I did but know their names," replied Siddy, thoughtfully; "I mean Marguerites. What do you call these white flowers?" she asked, looking back to a countrywoman who stood in a respectful attitude some steps behind the busy pair, looking on at their proceedings with a pleased smile.

"We call them daisies," said the woman.

"Ah, that's it?" cried Siddy; "cut long stalks, Benno."

"They haven't got long stalks," said Benno, plaintively, carrying her what he could pick near at hand. "I will tell you what astonishes me," he began, sitting down by his sister on the grass. "This meadow is full of flowers; when it is mowed the grass becomes hay, and one doesn't see a thing of all the flowers in the hay."

"Really?" replied Siddy, tying another thread. "They are probably dried up."

Benno shook his head. "Only look at a bundle of hay; you will see few of them in it. I think the people gather them beforehand, and sell them in the city."

Siddy laughed, and pointing over the green fields, said, "Look around you; they are countless, and people only buy the more lasting garden flowers; yet these are far prettier. How lovely is the star in the flower of our Lady Marguerite." She held the nosegay up to her brother, and looked lovingly at her work of art.

"You have completed it after all," said the young man, admiringly; "you were always a clever girl, Siddy, and I am so sorry that you are going away from us," he added, feelingly.

His sister gazed earnestly at him. Are you, really? And will you always think kindly of me, my brother? You are the only one here from whom I find it hard to part, Benno. We are like two orphan children sitting in the snow of a cold winter's night."

She who thus spoke was Princess Sidonie, and the sun was shining warm on the blooming meadow before her.

"How do you like my bridegroom?" she asked, after a pause, busily winding the blue thread around the finished nosegay.

"He is a handsome man, and was very kind to me," said Benno, thoughtfully. "But is he clever?"

Siddy nodded. I think he is. He writes nice letters. If you like, you shall read one."

"I shall be glad to do so," said Benno.

"Do you know," continued Siddy, mysteriously, that I write to him every day! For I think a woman ought to confide everything to her husband, great and

small, and I wish to accustom him and myself to that. To make sure, I write to him under a false address, and my maid takes the letters to the post, for I fear my stupid words might otherwise be read before they go." She said this with apparent indifference, examining her bouquet all the while. "He will hear every little detail of this visit to Lady Marguerite, and that it has given you pleasure. Now the bouquet is ready," she exclaimed, gaily. "I will fasten a handkerchief round it; we will take it in the carriage, and I will set it on my writing-table."

Benno laughed: "It looks like a club. You can lend it this evening to the savages in the ballet."

"It is better than the flat things which one can't even put in water," replied the sister, jumping up; "come along, we will carry it to the pump."

They hastened to the farmyard, followed by the peasant woman. Benno took a bucket and carried it to the pump.

"Let me pump," cried Siddy. She seized the handle and tried to move it, but did not succeed; only a few drops ran into the pitcher.

Benno objected. "You are too clumsy," he said, "let me try it." He now took hold of the wooden handle, and Siddy held the bucket. He pumped vigorously, and the water spurted out over the bucket, upon the hands and dress of the Princess. She made a slight exclamation, let the bucket drop, and then both burst out laughing.

"You have made a nice mess of me, you naughty wretch," cried Siddy. "Oh, it makes no difference, mother," she added, to console the woman, who ran up terrified, clasping her hands. "Now, Benno, an idea has occurred to me: I will put on a gown of our dame Marguerite, and you a smock-frock of her husband, and when our cousin comes he will not know us, and we will surprise him."

"If all only turns out well," rejoined Benno, doubtfully.

"No one sees us," urged Siddy. "Good mother," she said, coaxingly, to the country-woman, "come into your room, and help us to dress."

The young Prince and Princess took the woman by the hand and led her into the house. Benno laid his coat down in the hall, and looked doubtfully at the smock-frock, which was brought to him by a stout maid, who assisted him in putting it on. The elegant peasant lad seated himself patiently on a bench, while waiting for his companion, and employed his leisure in turning a grinding-stone and inquisitively holding the tips of his fingers close to it. Whilst he was making this experiment, he received a slight blow on his back, and with astonishment beheld, standing behind him, a little peasant maid, in blue petticoat and black jacket, and the usual cap of the country on her head.



"How do you like my appearance?" asked Siddy, crossing her arms.

"Charming," exclaimed Benno. "I had no idea that I had such a pretty sister."

Siddy made a rustic curtsy. "Where have you kept your eyes, you foolish boy? Now we must help in the household. What work can you give your new servants, Mother Marguerite?"

The woman simpered. "There is the fodder for the cows to be steeped in hot water," she said.

"No more water, we have had enough of that. Come, Benno, we will set the table in the garden under the fruit-trees, and then carry out the curds and cream."

They went into the room, and brought out a small bench placing it on the grass-plot, under an apple-tree; then they hurried back for the plates and spoons. The woman and the maid carried out the table with a large bowl of milk, and some rye bread. Siddy tripped about nimbly, laid the tablecloth, and carefully smoothing it out, placed the colored earthenware upon it.

"Look!" whispered Benno, pointing with a troubled air to the worn pewter spoons.

"We can wash them, and dry them with green leaves," advised his sister.

They ran with the spoons to the pump, and rubbed them hard with leaves, but they could not polish them.

"That's just their way," said Benno, consolingly; "it is part of a country picnic."

The table was laid, and Siddy brought forward some stools and wiped them with her cambric handkerchief.

"You are the Hereditary Prince," said Siddy, "so you must sit on the bench, and we others on each side of you. The rye bread must be crumbled, but every one can do that for themselves. There is no sugar, but that doesn't matter."

They sat waiting before the milk bowl, beating time with the spoons. A little green apple fell plump into the milk, and spattered it about. Both burst out laughing, jumped up, and collected the unripe apples and plums from the grass, peering across the hedge at a path which led through the woods to the town.

"There he comes," cried Benno; "hide yourself!"

A horseman rode up at a gallop. It was a young officer. He threw himself off his snorting horse, fastened it to a post, and leaped over the hedge. But he stopped amazed, for he was greeted with a cross-fire of unripe apples and plums from each side of the hedge. He quickly collected some of the green shot, and defended himself as well as he could against the assault. The little peasants sprang forth, and Benno cried out, "You have kept us waiting a long time."

Siddy made him a curtsy, saying, "Prince, the butter-milk is served."

Prince Victor looked with evident admiration at the young peasant. "Ah!" he said, good-humoredly, "now one sees how small the feet are before which one does homage. All right, children. But first of all I must have satisfaction for the attack."

So saying, he knotted his pocket-handkerchief; the brother and sister laughed, and said, beseechingly, "Be good, cousin, we will not do it again." "Oh, dear Ogre, pardon and compassion!" implored Siddy, raising the corner of her apron to her eyes.

"Nothing of the kind," cried Victor; "I shall no doubt be arrested again on your account, and shall therefore punish you beforehand." He chased them round the table.

"This is disagreeable, cousin," cried Siddy; "let us leave off this nonsense, and come to the table. I will help you. There is the cream. Everything must be fairly distributed when Victor is present."

Victor examined the table. "It is all very nice, but there is no sugar."

"There was none to be had," cried the brother and sister, in chorus.

Victor put his hand into his pocket, and placed a silver box on the table. "What would become of you without me? Here is the sugar." He again dipped into his pocket, and brought out a leathern flask with a small drinking-glass. "Here is another important thing, the cognac."

"What for?" asked Siddy.

"To drink, most gracious cousin. If you will put this cold mess into your interior without cognac, I shall not venture to oppose you; but I advise you, Benno, as a man, to take care of your health."

Both held their spoons with an air of embarrassment.

"Is that necessary?" asked Benno, distrustfully.

"It is a pacifier, as our doctor says," declared Victor; "it calms and quells the rebel substances into quiet submission. If you refuse the cognac, it is just like on the way to hell. The path is easy at the beginning, but what follows is chaos. At all events, you would be spared the ballet to-day. Is that clear to you?"

"It is very clear," cried Siddy, "that you are as usual making sport of us. Give him a rap on his fingers, Benno."

Benno tapped his hand with the spoon. Victor sprang up and parried it, in fencing posture, with his spoon; and the brother and sister chased their cousin merrily about among the trees.

They were disturbed by a hasty tread, and a lackey made his appearance for a moment at the garden-gate. "His most Serene Highness is riding this way," he called out.

(To be continued.)



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To the *Kinetic* conception of the world's mechanism Vogt opposes his hypothesis of a *continuous* world-substance completely filling space and whose sole manifestation of power consists in *contraction* or *condensation*. He claims that the kinetic or mechanical theory which explains organized and spiritual phenomena from inelastic atoms and a purposeless force, is untenable; and that pseudo-morphism which transforms the most complex conditions and processes of psychical life into the elementary substance itself, involves the fallacy of idealism and dualism. As opposed to both views Vogt propounds his conception which he calls Monism of Reality. He attributes to matter two fundamental properties, motion and sensibility, and deduces from these elementary properties the higher phenomena of intellectual life.

## THE INDIVIDUALITY OF ATOMS AND MOLECULES.

REV. H. H. HIGGINS, M. A., Jr. Nos. 41 and 42.

Mr. Higgins says: "Evolutionists have to choose between discontinuity and the recognition of a universal principle of life, which may be regarded not as mechanical, but as inherent in the primordial atom." This idea underlies the theory of J. G. Vogt also. But Mr. Higgins attributes an individual *bias*, or life-unit, to every atom, while Vogt postulates a continuous, contractile, elastic world-substance, wherein the atoms of modern chemistry are made to be centres of condensation. Mr. Higgins hypothesis endows each atom with an idiosyncrasy which comprehends all that determines its individuality and makes it what it is. The essay should be read in connection with a letter in No. 43 upon "The Origin of Life and the Problem of Memory."

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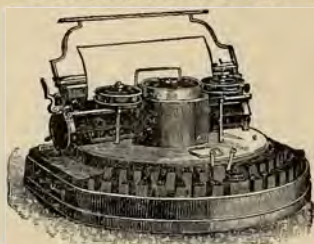
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WHEELBARROW'S essays are contained in the following numbers of THE OPEN COURT:

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Economic Conferences. III. A review of T. J.		
Morgan's lecture.....	" 1104	No. 47

"Wheelbarrow" speaks to the laboring men from the standpoint of a laborer, although he does not work with a shovel and wheelbarrow now. In his first essay, published in one of the early numbers of *THE OPEN COURT*, he says: "I sign my name 'Wheelbarrow' because that is the implement of my handicraft as was when I was a strong man. I was by profession a 'railroad man,' my part in the railroad business was making the road-bed by the aid of a pick, a shovel and a wheelbarrow." We quote this passage because from our personal acquaintance with "Wheelbarrow" we understand that it is literally true.

"Wheelbarrow" treats the labor question in a manner peculiarly his own, with illustrations drawn from every-day experience and presenting a moral which may be seen at a glance. He advises the working men in a friendly, persuasive way, and criticises many of their methods of reform as harmful to themselves, tyrannical and unwise. These essays have been much admired, not only by the working men, but also by men eminent in American literature. In an editorial article on "Wheelbarrow," the *Boston Herald* said: "He possesses in a striking degree the rare ability of being able to treat of complicated matters in so lucid and simple a manner as to make them easy of comprehension to those who have never before given the subject much thought. Last year he published a series of tracts on the labor question which were widely read, but not half so widely as they deserved to be. Treating of his subject from a working man's standpoint, he displayed an extraordinary wealth of apt but homely illustrations."

EWALD HERING.

Nos. 22 and 33 contain a very eloquent article on "The Specific Energies of the Nervous System," by Dr. Ewald Hering, Professor of Physiology at the University of Prague. His useful additions to physiological science are enumerated in the *Encyclopaedia Britannica*, under the heading of "Physiology." Several pages of the *Encyclopaedia* are devoted to Dr. Hering. His discoveries make an era in physiological study, and we remind our readers of his learned and instructive essay on "Memory," published in Nos. 6 and 7 of THE OPEN COURT.

Dr. Hering's article on the "Specific Energies of the Nervous System," while profound in argument and full of information in its details, is at the same time so simple in statement and so easily understood that the reading of it is a pleasure as well as a study. Such articles enable us to see farther into Nature than we formerly did, and they reveal to us that her "specific" work is much of it so delicate and fine that the most powerful microscope cannot make it visible to the material eye of man. Throughout the essay the following proposition is maintained: "The germs of each animal species possess an inherent and innate faculty, viz: a *specific energy* which directs its development in a manner characteristic to this animal and no other. Again, each single germ possesses an individual energy which, in addition to the normal features of its species, secures an individual character to its future development."

GEN. M. M. TRUMBULL.

In No. 25 Gen. Trumbull has an article on "The Value of Doubt in the Study of History." He shows the tendency of historic writing toward exaggeration and falsehood; and he advises teachers to strengthen the minds of pupils by the exercise of doubt. Much of the history of the late war as written by our famous generals is as fabulous as the legend of Romulus and Remus. It is written by men interested in their own story, and therefore it comes under the suspicion cast upon it by the ordinary rules of evidence. "This war history," says Gen. Trumbull, "is woven out of camp-fire yarns." "Like the feet of Chinese children," he says, "our minds were crippled in infancy, and many of them have been lame ever since. They are not as useful to us as they would have been if strengthened in infancy by the exercise of doubt."



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## AGNOSTICISM.

BY MONCURE D. CONWAY.

While voyaging on the Southern seas our world was suddenly changed. The sun became blue and sank behind a horizon resembling a wall of copper. After a time we reached an island, and heard that it was a great earthquake and volcanic eruption in Batavia that had been so reflected on sea and sky. In the Indian Ocean we sailed for some days through masses of floating lava. One day we passed near a huge palm, with its roots on, which must have been a thousand miles from the coast from which it was hurled,—a coast we had avoided because its light-houses were destroyed. On this huge floating palm were perched many birds of various species, and from different climes. We passed near enough to hear if there had been any note. But they sat as if unacquainted with each other,—peaceful, silent, motionless.

The incident has been recalled to me by the arraignment of Agnosticism in *THE OPEN COURT* (June 28, 1888). Surely Agnosticism is only an orthodox palm hurled by the Darwinian earthquake out from its habitat. Wings of those whose nests are desolate, of others in migration, and they who are weary of buffeting the tempest, have here for a time alighted. From the time of Paul who, when argument fails, rebuffs the inquirer, as Jehovah did Job ('Who art thou?'), to the time of Robinson Crusoe, when Friday asks 'Why not God kill debbil?', Agnosticism has been the virtual refuge of theology. That indeed is natural and inevitable; for theology is a retained attorney whose business it is to defend an institution, with great interests, resting on a foundation which must be concealed. Its art is that of the Etruscan priests who kept the mighty gods veiled (*Dii Involuti*). It might be said they were too resplendent to look on; really, they dated from such a rude period that they were not fit to be seen by a more refined and critical age. Only so long as their grotesque faces were not seen could they be adapted to the popular imagination, and their authority retain respect. A corollary of this is that the only effectual reply to a superstition is to explain it, to unveil its origin and history.

But what has the rationalist to do on this raft? Notwithstanding the distinguished names associated

with Agnosticism I cannot help suspecting that it is mere weariness of wing in facing the conventional tempest which has brought freethinkers to seek rest on the floating palm. I knew an atheist whose son was troubled at school for openly calling himself the same. "My child," said the father, "you must not call yourself an atheist, but an agnostic; then you will not be troubled."

The ethics of such a course each must determine for himself, at present; for such connotations surround words like 'atheist,' 'infidel,' 'freethinker,' that no man can truly state his belief by adopting them. Nor can one wonder that some new and less odious term should be sought. But, however unimportant this attitude may be in some, it is necessary that public teachers shall be exact thinkers. How many preachers who are sheltering their dogmas under Herbert Spencer's "Unknowable," are aware that Herbert Spencer has declared that he has no reason to suppose this "Unknowable" either intelligent, or good, or moral? Nevertheless, it appears to me the poorest piece of work Spencer ever did was to raise this phantom of defunct theology. No man knows better that all foul creatures can lurk and breed in its cavern of mystery.

In addition to the philosophical exposure of Agnosticism in the editorial article referred to (in *THE OPEN COURT*), certain quasi-practical statements may be made.

Agnosticism can have no relation whatever to religion. There have been many theories to account for the variations of the compass. The cause is unknown; it may be unknowable. But what has the Cause to do with religion? Precisely as much as it would have if for the compass we read the Universe. If there be any unknowable—which I do not believe—it may be a god or a gas; but whatever it may be cannot in the least concern the religious nature. For religion is not concerned with a causative agency, but with the character of that agency. Do you say there is a Creator? It is the same as if you say there is a protoplasm, unless you define this Creator. Is it Byelbog or Tchornibog, Ormuzdor or Ahriman? And what is he or it to me, or I to him or it? For any religious purpose there must not only be knowledge, but intimate and complete knowledge. For that reason such abstract and



vague gods as Brahma and Jehovah have no temples or altars; religion follows Jesus, Buddha, Mary, who may be known and loved. Herein religion is actual. Religion can only mean a theory or conception of things on the truth and moral value of which a man bases his life. But this value he can only know by the fruits his religion has borne in the lives and wisdom of certain men. Except as his faith is thus determined by fruits it can have no ethical value even though true. For many a true thing is odious. For example, it is true that in some communities, both of animals and men, the "fittest" to survive is the morally "unfittest,"—the most venomous, furtive, selfish. Religion, therefore, is less concerned about the scientific truth of things than the ideal potentialities of things. This ideal is essentially an expression of the humane standard. Hence to be loved and followed, the Unknowable, like every other god who has excited the religious spirit, must be born of woman. All religious which have gradually de-humanized their deities have become weak. Such are Judaism and Parseism. The great religions,—those which have touched the human heart—have apotheosized some man until he is transfigured with the ideals, and embodies the hopes, of all humanity. There is nothing so well known to us as these ideals and these hopes. What religious or moral relation can man have to the unknowable?

While valuing so highly the attitude of THE OPEN COURT, in the article reviewing the Field-Ingersoll controversy, towards the Unknowable, it would not be candid to omit saying that it does not make clear, to my own mind, the ethical side of Monism. "It takes as its basis the unitary conception of modern science and finds in this view the best support and confirmation of the fundamental truth of religion." The truth at the bottom of all religions, giving them their ethical import, "is the recognition of a moral law in Nature to which man has to conform in order to live, in order to live well, and to be blest." But where is any moral law found in nature except in man? Except in man, and in so much of the world as man has partly humanized, nature seems predatory, and cruelly impartial between good and evil, brier and the fruit—if not, indeed, favorable to the brier. May it not be more truly said that there is a moral law in man to which nature must conform in order to live well and be blessed?

And can it be said that "truth is stronger than error?" I cannot so interpret the crucifixion of Jesus, or the banishment of Buddhism from India, or the present reign of superstition. In three-fourths of the world adherents of error "survive" more comfortably, multiply and increase more extensively, than the disciples of truth. Nor does any tendency to reverse this plainly appear in the nature of things—apart from

the efforts of human science and morality to substitute human for natural selection.

## ECONOMIC CONFERENCES.

### III.

BY WHEELBARKOW.

American Chartism has a very close resemblance to the English article of that name, so close indeed, that listening to Mr. Thomas J. Morgan, who came third in the Economic Conference course, I thought myself once more a boy in London cheering the labor gospel at the Chartist hall in John Street. Mr. Morgan looked like a Chartist, spoke like a Chartist, and the spirit of Chartism was the magnetic string by which he tied the audience together. Mr. Morgan is an effective orator because he has the sincerity and zeal of a fanatic. That is not the worst of it; he is a fanatic with a cause; a fanatic with an argument written in tears.

With some cleverness, Mr. Morgan captured the sympathy of his audience in advance of his argument. He complained that he was only five feet two inches high. The crowd laughed at this, not seeing the subtle charge behind it. They saw it presently when the orator declared with much dramatic force that he had been cheated out of his rightful stature by the rapacity of capital. As he said that, I thought of the cynical Gloucester in the play scolding nature for a like wrong done to him:

"I, that am curtail'd of this fair proportion,  
Cheated of feature by dissembling nature,  
Deformed, unfinished, sent before my time,  
Into this breathing world scarce half made up."

Mr. Morgan 'could not complain that he had been cheated of feature, for his face is well enough; and what there is of him is in fair proportion, but he had been cheated of stature, not by dissembling nature, but by unfair advantage taken of him when a child, prematurely sentenced to hard labor in the factory, where children's hearts are squeezed like grapes and the product sold for gold. All this was mournful enough, but the sympathetic pain of it was felt only by the small men in the audience, men like me, cheated of our stature in the same way. Not so, when he complained of his diminutive social size, for here he touched a chord that vibrated in the hearts of all the men present, who, like himself, were cheated of social stature because they worked for bread. Referring to the slighting way the newspapers always spoke of him, he said: "My social standing and dignity may be measured by the contemptible insignificance of the words 'Tommy Morgan,' and I am a type of the wage class."

Although that preamble was given in a sneering way as if rendering scorn for scorn, there was artful pathos in it, because every working man in the house



was smarting under the low-caste brand stamped upon him by society. Here was a man of character and ability, of earnest convictions, and active philanthropy, whom the newspapers would not allow to rise above the littleness of a nickname because he worked for wages, and had the daring to say things in criticism of society. Notwithstanding Mr. Morgan's manly claim for courtesy, it was refused him by the press; and the next morning the newspapers deliberately repeated the insult of which he had complained; they jeered him again as "Tommy." They saw a sensitive man whom they could wound, and they wounded him. I think the newspaper that thus wantonly violates the laws of social kindness can hardly be called a gentleman. Editors and writers from long habit of criticism sometimes forget the chivalry and charity which will not wound the feelings of other men; a chivalry which in ordinary social intercourse they are careful to display. It is the gentle instinct refined and polished by exercise that makes a gentleman. The possessor of it may be a peasant or he may be a king. He may be an editor also, but in that case his nobility will be reflected in his newspaper. "The hard rain," said Rory O'More, "the hard rain only cuts the body, but the hard word cuts the heart." I have read that much of the cruelty of the French Revolution was vengeance for ancient scorn.

Mr. Morgan's pathos became sarcasm of good quality when he showed the obsequious deferential way in which those papers spoke of the banker, who lectured in the same course on the preceding Sunday night. This contrast marked with double emphasis the ungenerous treatment given to Mr. Morgan. There are not ten rich men in Chicago outside the learned professions who own as much useful knowledge as Mr. Morgan owns. There are not five of them who can weave that knowledge into an argument with such ingenuity and skill as he can do it, and there is literally not one of them who can present an argument in such logical shape, and with such oratorical power as Mr. Morgan presented his reasons for State socialism. Yet, because he is a laborer, he is not allowed the ordinary civilities of life, nor any designation higher than "Tommy." Of all the ills in Hamlet's catalogue, "the proud man's contumely" is the most irritating to the working man.

Mr. Morgan's theme was "The labor question from the standpoint of a Socialist." He built his argument on a platform of statistics, the arithmetic of poverty. Sophistry delights in statistics. They are plastic and accommodating witnesses. Although the proverb says that "figures won't lie," they seldom come into a court of investigation without being successfully impeached. That squalor abounds in all great cities is confessed by everybody. It is not necessary to bring witnesses to prove it. Squalor is the sediment of

cities. Its causes are a thousand, its cures must be as many. Speculative reformers like Mr. Morgan forget this. They have a patent medicine, a magic balsam which cures all political and social disorders. Society must be cured by that or they will not allow it to be cured at all. Like the jealous physician they would rather see the patient die, than cured by any other "school of medicine" than their own. Mr. Morgan sees misery produced by a multitude of causes, yet he has but one remedy, the vague, uncertain hope and promise called State Socialism; wherein all individual ambition is to cease, where no man shall grow taller than his fellow, and especially not more than five feet two inches high. Mr. Morgan looks and speaks like a man who would stand by his principles with consistent heroism. Like Sam Weller's acquaintance who shot himself to prove that muffins were wholesome, Mr. Morgan would rather carry a donkey's load forever than be relieved of his burthen by any other methods than his own.

Men and women who reform the world by wholesale, and who scorn to help their fellow creatures by any retail system, charge all human ills upon society, and relieve mankind from individual guilt. Thus Mr. Morgan transfers the vice of drunkenness from the men who practice it to their form of government. Strong drink, our most efficient poverty-maker, was presented to us rather as a friend of the working man than an enemy; a useful tonic and restorative. Mr. Morgan shifted intemperance from its old position, and made it the effect, not the cause of poverty. This unlucky transposition will have an evil influence over the men who follow his lead, and they constitute a large element of the laboring population of Chicago. We are grateful to the man who unloads our private faults upon the public, but a better friend is he who tells us to reform ourselves now without waiting for changes in the law. Self-discipline is premature, says the flatterer; wait until the State is reformed. Then will be the time to curb your appetites. For the present, comfort your hearts with wine.

After flattering strong drink as a tonic whose office it is to raise the heart of the exhausted worker, Mr. Morgan said: "Give the laborer a chance to get a better home than a couple of rooms. Give men a reason for living and they will not need intoxicants." The applause here had a mendicant flavor about it which was depressing and very sad. The man who comforts himself with "intoxicants" while waiting for "government" or some other benevolent fairy to give him three rooms instead of two, will not have two rooms very long. Whose duty is it to give a man reasons for living? Men must make their own reasons for living, and they must not be expected to share them with the rusty delinquents who think that good



enough reasons for living may be found in beer. Individual ambition, and an active personal conscience are the levers by which the working men must lift themselves. Self-reform is the true tonic of exhausted labor. The man who would elevate society must raise his own part of it, which is himself. A maudlin trust in "government" will accomplish nothing. "Who would be free themselves, must strike the blow." Above all things the working men need freedom from the flatterers who tell them that their vices are not their own.

In like manner Mr. Morgan transferred the sin of laziness from the idler to his external conditions. For this he gave some reasons which society may well examine. He said that idleness existed among the poorer classes because "they were born tired." This bolt struck its mark with the force of a cannon shot. A comprehensive indictment against the existing order of things was condensed into a single sentence. I have often heard it said of lazy men in jest that they were born tired, but Mr. Morgan uttered it seriously as a physiological truth. He said the habitual exhaustion of laboring men and women was transmitted to their children, and that millions of children were tired at the very moment when they came into the world. They inherited laziness. This is a terrible charge against our present social organism, and I fear that Mr. Morgan can bring much evidence to sustain it. In Lord Byron's drama, "The Deformed Transformed," Bertha says to Arnold, her deformed son: "Out hunchback!" and Arnold answers, "I was born so Mother!" In this answer he flings the reproach for his deformity back upon his parents, where indeed it properly belonged. So, Mr. Morgan, confessing the vices of his order, confronts an accusing world, and retorts with bitterness, "We were born so, Mother!" If he is correct, then is our penal code nothing but an expression of legislative ignorance. Whether he is correct or not, his plea of hereditary defect is entitled to grave consideration. It warns us that a little benevolent perfumery sprinkled on the decaying spots of our social system will not disinfect the slums, that we must go down below the surface of our industrial conditions and wrestle with evil in the place of its origin. Men in cloth, and women in silk, wholesale dealers in reform, moralizing against the wind, must work more and talk less. However small the cause of one man's poverty, or of ten men's poverty may be, it is not beneath the dignity of any man who truly desires justice to remove it if he can.

Mr. Morgan showed that in the labor-market there are more sellers than buyers of human muscle and brawn; therefore strikes fail, because there are always unemployed men enough to fill the vacuum created by a strike. Here he threw in a word of pity and apol-

ogy for the "scab." He overdid it, and showed that his own order needed most the pity and the apology. He said, "These alleged idlers are the men termed 'scabs.' They risk losing their lives in the event of securing a job—prefer the abhorrence and detestation of their fellows rather than be without employment." Rather than be without *liberty* is the correct statement. It is not the fear of poverty but the love of liberty that gives that courage to the "scab." The so-called scabs are the nobility of labor, the hope of industrial emancipation. They have been the martyrs of independence in all ages. They are the upright brave who run the risk of death, the abhorrence and detestation of their fellows, rather than surrender their manhood into the keeping of other men. Those who threaten scabs with death, who load them with detestation and abhorrence, should beware how they fling contemptuous names which may rebound upon themselves. The "scab" is a free laborer; the man who can be "ordered out" or "ordered in" by a "chief," a "grand master," or a "walking delegate" is not. I do not speak in reproach, but in sympathy for men driven by despair to bad methods of defence. I have heard that it is written in the law that if two shipwrecked men are clinging to a plank which will only support one man, either of them may drown the other, and the act is not murder; but I do not believe the working-men of America are in any such extremity.

Necessity is the plea offered for intolerance. "Organized labor" says: We have placed our freedom in the hands of trustees, who promise to prop up wages for us by the persecution of all other men if necessary. It is easy to preach on this and show the folly of it. It is easy to censure the cruelty of it, but men who live in haunted houses where the ghost of hunger sits forever on the hearthstone are very apt to be feeble in philosophy and confused about *moral* distinctions. Holding work by a precarious tenure, liable to be idle any day, limited to a small ration of nature's raw materials out of which to make his living, with new inventions daily cheapening skill, it is natural that the mechanic, frightened by the combined adversities that threaten him, clutches at any means of safety, and shoves his neighbor off the plank. In Mr. Morgan's own words, "The worker, realizing by experience the futility of individual resistance seeks in trades-unionism the means of protection." To which I answer, "'Tis true, 'tis true, 'tis pity; and pity it is 'tis true.'" For all this, the laborer must learn that he will never win his own rights by doing wrong to others. He must learn that the laws of justice are binding upon him as upon all other men. Passionate critics, like Mr. Morgan, feeling keenly the rich man's advantage, make no allowance for the millionaire, who may be the victim of his "environment" as helpless as the



laborer in his. They do not see that magnanimity may travel upward as well as downward, and that it is equally due from the poor to the rich as from the rich to the poor. It sounds odd, but few of us know how much the rich need charity.

Mr. Morgan pretends that the laborer's margin of comfort is so small that he has no room for self-denial, and that the luxuries he is called upon to deny himself have already been denied him. He refuted this last Sunday, when he led the working men of the Trade and Labor assembly to resolve against drinking beer for thirty days, as a punishment to the master brewers who were employing non-union men. This bit of self-denial Mr. Morgan approves as discipline for the master brewers, but is not the self-discipline of it a victory more sublime. Trades-union statesmanship never devised a plan for raising wages so effectual as that. By it, every man in the scheme raises his own wages, or saves a wasted portion of it which amounts to the same thing. On Monday, Mr. Morgan said, "I drink but one glass of beer a day, and I quit that last night." This was a wise resolution unless Mr. Morgan intended to increase his daily allowance, because if the tired working man needs beer to tone him up and keep him going, one glass of it per day is not enough, and if he does not need it, one glass is evidently too much. Mr. Morgan raises his own wages five cents a day. Not much indeed, but it amounts to a suit of clothes a year, which to a working man is considerable in this climate.

According to Mr. Morgan there are four acts in the evolution drama, barbarism, feudalism, individualism and socialism. We are now near the end of the third act, and individualism has possession of the stage. The arrangement is purely fanciful, and if the order were inverted it would be just as true. Is not State Socialism a quality of barbarism? I don't mean a bad quality, for many philosophers of high rank look upon State Socialism as a redeeming virtue in the political system of the Indians. Is it not error to think that individualism prevails even in the United States? Here every citizen has a legislature in almost continual session embracing him, petting, patronizing and protecting him. Sometimes two legislatures are affectionately squeezing him at the same time, and like a brace of benevolent garroters, literally "holding him up." Is it not the dream of every citizen that congress has the power to make prosperity? And many actually believe that Congress can make money. It is the chronic state of every man in this country that he "wants to have a law passed." What sort of individualism is that?

Mr. Morgan appears to be jealous of specific reforms. He prefers to see injustice breed injustice, and wrongs multiply. He thinks that after a fruitless

march of calamity, the people in despair will turn to State Socialism for prayer and rest. The prospect for labor is not bright when leaders like Mr. Morgan, "hail with delight the organization of every corporation, pool or trust that monopolizes production, communication, distribution, transportation or exchange." There is an unfortunate cabman in the lunatic asylum, who, although sane on other subjects, thinks that the nearest and best way to anywhere is across the great desert of Arabia. In his efforts to go by that route he caused his passengers much inconvenience. Mr. Morgan desires to conduct the working men to a better social state, but he insists on taking them there by way of the Arabian desert.

#### THE ONENESS OF MAN AND NATURE.

Mr. Moncre D. Conway's friendly criticism (on page 1105 of THE OPEN COURT) is a welcome challenge to explain more fully than has been done heretofore "the ethical side of Monism." According to Monism man is a part of Nature, a part of the one great All, and the ethical import of Monism is based on the recognition of this idea of oneness. The barrier which in the opinion of dualistic systems existed between the *ego* and the rest of the world is broken down. The individual belongs to the whole as an integral part of it. The more fully, the more correctly and truly the cosmos\* of the Universe is mirrored in a consciousness, the closer will be the union of the *ego* with the All and the more moral the individual must become. The better a man understands the true connection of his soul to the souls of his fellow-beings and the better he comprehends his right relation to the great whole of all-existence, the more will he conform to what he calls the laws of sociology and the moral rules of conduct. And the more he conforms to these conditions, the fitter he will be to survive in the struggle for existence.

This in large outlines the ethical aspect of Monism, and this is the character of evolution also. The ethics of Monism can fitly be named Evolutionism, for evolution is possible only because the laws of the world in which we live are a moral power. The Cosmos itself, the order of the world, is the foundation of morality. Properly speaking, we cannot say that the All is moral. This is an anthropomorphic expression, which, in poetic speech, may be allowable but is not correct. The truth is individuals are moral in so far as they conform with the Cosmos, in so far as they become one with the All and conform to its order, or humanly speaking, as they obey the laws of the whole.

From the monistic standpoint man is the highest product of the All. Man is the blossom on the tree

\* Cosmos literally translated means order.



of Nature, and humanity is its fruit. Man is grander and nobler than the rest of nature, as the blossom is a higher stage of evolution than the leaf. But a flower and a leaf, though they may be contrasted as the higher and lower stages of one and the same plant, cannot be considered as two essentially different beings. Thus human civilization, and the vegetable and animal kingdoms can be viewed under the aspect of opposites but not as contradictions. Both are products of the same tree, both are natural, and we shall find that in human society the same fundamental laws are at work as in the other natural kingdoms. Man by his higher qualifications conforms more quickly and readily to these laws. There is more truth in his conception of the universe than in the imperfect percepts of animal brains. Therefore he is more powerful, therefore he is more moral and therefore fitter to survive in the struggle for existence.

These facts cannot be denied when we observe how man takes possession of the earth and how brutes and wild beasts are extirpated; how also among men the savage races die out, while the civilized nations conquer the world. And yet it is an every day's experience that the morally bad triumph over the good, and that the honest are worsted by the wicked. The possibility of falling into error is greater than that of hitting the truth; accordingly while one truth is born, hundreds of errors have occasion to arise. Errors multiply quicker than truth and the briers seem more fertile than the useful fruit-trees.

The truth of this is obvious, although the potency of wickedness seems to contradict flatly the former statement that morality makes man fitter to survive. Similarly the fertility of error seems irreconcilable with the fact that truth is stronger than error and must survive in a world where the fittest will finally conquer. And if we experience, ourselves, the power of iniquity, if we personally suffer from the advantages which the wicked gain by their very unscrupulousness, we are but too much inclined to lose all confidence in the moral order of the world.

There have been and still are times of trial and tribulation in the development of entire nations as well as of single individuals, when it takes all our strength not to lose faith in ethics and in the worth of ethics. Even Christ cried in the agony of death his *Eli, Eli, lama sabachthani*. "My God, my God, why hast thou forsaken me?" All the sages of humanity agree that it takes a strong character and the moral power of purpose, faithfully to endure in temptation and constantly to trust in truth and righteousness. There is sufficient cause for a lack of faith, and enough occasion for following the path of vice and wrongdoing. Almost all aberrations from truth and justice appear pleasant and full of promise in the

start, and the warnings of parents and teachers are easily forgotten. Nevertheless these aberrations lead to inevitable ruin, and although the righteous path may be thorny now and then, perhaps too often for our taste, we should nevertheless, difficult though it may be, never lose faith in the final triumph of truth and justice.

The spirited shepherd boy who became king of Judea sings in one of the psalms:

The wicked in his pride doth prosecute the poor.

His mouth is full of cursing and deceit and fraud: under his tongue is mischief and vanity.

He sitteth in the lurking places of the villages: in the secret doth he murder the innocent: his eyes are privily set against the poor.

He lieth in wait secretly as a lion in his den: he lieth in wait to catch the poor: he doth catch the poor, when he draweth him into his net.

He croucheth, and humbleth himself, that the poor may fall by his strong ones.

He hath said in his heart, God hath forgotten: he hideth his face; he will never see it.

And in another song the royal Hebrew poet gives an answer to his anxious doubts as to the apparent lack of justice in the order of the world. He says:

Fret not thyself because of evildoers, neither be thou envious against the workers of iniquity.

For they will soon be cut down like the grass, and wither as the green herb.

Cease from anger, and forsake wrath: fret not thyself in any wise to do evil.

For yet a little while, and the wicked shall not be: yea, thou shalt diligently consider his place, and it shall not be.

But the meek shall inherit the earth; and shall delight themselves in the abundance of peace.

The wicked plotteth against the just, and gnasheth upon him with his teeth.

The wicked have drawn out the sword, and have bent their bow, to cast down the poor and needy, and to slay such as be of upright conversation.

Their sword shall enter into their own heart, and their bows shall be broken.

A little that a righteous man hath is better than the riches of many wicked.

The wicked borroweth, and payeth not again: but the righteous sheweth mercy, and giveth.

I have seen the wicked in great power, and spreading himself like a green bay tree.

Yet he passed away, and, lo, he was not: yea, I sought him but he could not be found.

I have been young, and now am old; yet have I not seen the righteous forsaken, nor his seed begging bread.

Depart from evil, and do good; and dwell for evermore.

The righteous shall inherit the land, and dwell therein for ever.

David finds comfort in observing the eventual fate of the prosperous evil-doer, for "a little while" and "he passed away, and, lo, he was not."

The triumph of truth and virtue, however, is not such as to make their devotees wander through the pleasant vales of perpetual happiness. Just the con-



trary; the path of virtue and truth is often not easy to find and difficult to walk upon. "Strait is the gate and narrow is the way which leadeth unto life and few there be that find it." Similarly the Greek poet says:

Τῆς δ' ἀρετῆς ἰσθμὸς θεοὶ προσέθεντο ἰσθμῶν  
Ἀθανάτοισ' ἄσπερος δὲ καὶ ἠρώδης ἄβυσος ἐπ' αὐτῇ.

[Toil before Virtue is placed by judicious decrees of Immortals. Steep is the path to her heights and rugged the road to the summit.]

The evil consequences of error, folly, and crime, it is true, often come so slow that it appears as if the sinner would escape punishment. They come late, yet they are sure to come, as a Greek sage has said:

ὁπλ' αἰὼν ἀλέουσι μένος, ἀλέουσι δὲ λεπτά.\*

"Though the mills of God grind slowly,  
Yet they grind exceeding small;  
Though with patience he stands waiting,  
With exactness grinds he all."†

The simple narrative of the crucifixion of Christ has impressed humanity so deeply because of the moral lesson it conveys. The most touching and sympathetic features of the holy legend must be found in the suffering which the God in man has to undergo. The divinity of man is a source of intense pain and tribulation. Our very ideals lead us into trouble and temptation and even into the darkness of death. And yet we should not despair; we should preserve our faith in truth and righteousness. It is this lesson which made of the tragedy of Golgotha, a gospel and glad tidings to the struggling and despairing human race.

It is true, that with the new revelation of Christianity *per crucem ad lucem*, which showed that the path of righteousness leads through suffering, and that only a crown of thorns can become a crown of glory—errors arose which retarded or seemed to retard the general progress of truth. The same had happened to Buddhism. Its true ethical idea was soon overgrown and smothered by errors. Buddha himself and in a similar manner Christ himself opposed the dualistic and pessimistic conceptions of their forerunners. Both opposed fasting as injurious to body and soul, both left the abodes in deserts and abandoned monkish habits. They lived as men among men, they sat down at table and ate and drank with the sinners. The disciples of St. John therefore began to grow doubtful as to the divine mission of Jesus. They sent word to him and asked: "Art thou he that should come or do we look for another?"

Christ, as well as Buddha, represents a reaction against pessimism. It was the start of a new faith, a new hope, a new religion, a religion that should bear

the features of meliorism. These melioristic features in Christian ethics which beam forth in Faith and Hope and Charity, have been the strength of Christianity and did most for its propagation. It is the Christian faith which conquered the world, not the pessimistic and world-despising despair of its dualism.

The tares grow with the wheat, and errors freely sprout where a new truth is conceived. Errors multiply and increase more luxuriantly than does truth. And yet it is only for a while; they will pass away and truth will stand forth victorious.

It was again the Christian faith, the melioristic feature of Christianity, which proved a regenerative power in the time of the Reformation and led humanity one step nearer to a monistic, a unitary, and harmonious conception of the All. It is faith in ethics and confidence in our ideals which, by an abandonment of creed, will lead humanity to the purer heights of a nobler conception of life and a more elevated existence on earth.

The ethical aspect of Monism has been brought to light more strongly by the recent investigations of experimental psychology, which have been instituted in France by Mr. Th. Ribot and other French savants. The modern psychology of Mr. Ribot agrees well with the monistic view which has been propounded by German scientists. The dualistic conception that there is at the bottom of the soul such a thing as an *ego*, has been proved to be wrong. The *ego*, or the state of consciousness, is not the cause of our mental life, it is the result of the innumerable and complicated nerve-organisms in our brain. The ideas we think are the elements of which our mental life consists. Our mind is *de facto* a republic of thoughts, of which now the one and now the other is called into activity. The unity of mental activity, says Wundt, is no proof of Des Cartes's view that the soul is a simple being; for the unity of the mind is now considered as resulting from a rich and complicated system.

The *ego* of our consciousness is concentrated and centralized, according to Mr. Ribot, in a similar way as our sight is focused in the lenses of our eyes. This modern psychological view has been explained by Mr. Hegeler\* in its mechanical aspects; and Prof. Mach compares the personality of an individual to an indifferent symbolical thread on which are strung the valuable pearls of our real existence.† These pearls are the ideas which have entered into our brains. The ideas which live in us are our true self. These ideas we have received from others and we communicate to others. These ideas, in so far as they are ideals, warm our hearts and keep aglow our enthusiasm so as to

\* Sextus Empiricus.

† The English version by Longfellow is a translation of Friedrich von Logau's epigram:

Gottes Mühlen mahlen langsam,  
Mahlen aber trefflich klein;  
Ob aus Langmuth er sich skumet,  
Bringt mit Schärfe Alles ein

\* In Nos. 1 and 11 of THE OPEN COURT.

† Prof. Ernst Mach, "Transformation and Adaptation in Scientific Thought," Part II, to be published in No. 48 of THE OPEN COURT.



make life worth living, for life is only worth living if we aspire towards something that is greater and nobler than our limited *ego*. These ideas in so far as they are the essence of what we call humanity, make of every single man a representative of mankind.

Thus the barrier between the *ego* and the great whole of the All is broken. Prof. Mach\* says: "Humanity in its entirety is like a poly-p-plant. The material and organic bonds of individual union have, indeed, been severed; they would only have impeded freedom of movement and evolution. But the ultimate aim, the psychical connection of the whole, has been attained in a much higher degree through the more luxuriant development which has been thus made possible."

The individual man is ethical by his Oneness with humanity, and humanity is ethical by its Oneness with Nature. If humanity would cut itself loose from Nature in which its origin lies and which affords the condition of its existence, it would die away and wither like a tree that is severed from its root. Humanity as a whole as well as the single man can live and grow, advance and prosper only by remaining one with the All, by being moral; i. e. by observing and conforming to the cosmical order of Nature.

P. C.

## CORRESPONDENCE.

### THE ETHICAL BASIS OF CHARITY.

To the Editor of THE OPEN COURT:—

Allow me to take exception to a point in "The Ethical Basis of Charity" by W. Alexander Johnson. I almost hate to do so, because I sympathize heartily with the idea put forth in the article as a whole. But, on the other hand, just for that, I take the liberty to criticise what seems to me a bend from the right road, which the author in his paper so masterly pursues.

Mr. Johnson says: "The law of the 'Survival of the Fittest' is without doubt the law of progress in animal life." Now then, this is an error, which is not made smaller by being met with rather often, and which must not be passed by unnoticed, because of the important course of ideas it involves. There is at the bottom of the error an identification of the "fittest" and the "best." But the competition in life or the struggle for existence is very far from being of so teleologic a nature or of so soft grained a turn. Charles Darwin in his work on the Origin of Species, says about extinction: "It is certain that insects and blood-sucking bats determine the existence of the larger naturalized quadrupeds in several parts of South America." (P. 295.) Thus, there is very little grace in nature. And I must object as much to the premises of Mr. Johnson that the law of the "Survival of the Fittest" has not unhindered operation in its application to humanity as to his conclusion that if it had, pauperism would speedily come to an end. He says: "Every pauper would have choice of three resources: he could work, steal or starve; he could no longer live by beggary." But this is an error, and an error which was in a very ingenious way pointed out by Mr. Johnson in the very article under consideration. There is for the pauper one more opening, and that is the senseless charity which Mr. Johnson blames; but which,

as a fact, enters into the struggle for existence, and is precisely the doleful circumstance which favors the lazy and low-minded, and like the vermin of South America, in their competition with better animals, makes the parasitic life they depend on more successful than that of many of their betters.

As I hinted before, it is a common error to misunderstand the law of the survival of the fittest, by identifying the fittest with the best. But this interpretation seems to me a very dangerous relapse into teleological optimism, which is as theoretically untrue as it is practically misleading, favoring all the deplorable *vis inertiae* of our moral faculties. The struggle for existence and the competition in life are a fact, and a brutal one at that, but not a nice arrangement of a more or less transcendental cosmical order which settles all for the best and which we can abide by. Whosoever has tried to cultivate a garden, or raise "live stock"—no matter what kind—and whosoever reasons, like Charles Darwin himself, with the knowledge of facts gained there before him, can not be one moment in doubt, that in this world of ours the "fittest" to live is very often not a very ideal individual.

DR. LINDBORME.

[Mr. Johnson has declared in his essay published in No. 37 of THE OPEN COURT that the basis of Charity must not be sought for in the sustenance of a pauper class which proves to be unfit in the struggle for existence, but in ourselves and our ethical nature.]

Dr. Lindorme, undoubtedly gives expression to the general opinion which is at present most popular. We do not hesitate to side with Mr. Johnson, not because we know the able editor of the *Reporter*, the Chicago organ for organized charity, to be an authority in this province, but because his evidence is coercive and unanswerable. It rests on the solid basis of scientific facts. If charity organizations would offer a constant help to those unable to help themselves, they would induce a large number of people to rely upon their help. They would raise and pamper a pauper class as has been done in Italy and other countries where charity has been practised with a vengeance and where its pernicious effects are felt in degrading the working class by lowering the standard and average price of free labor.

It is maintained that the fittest, not the best, survive. This is true in exceptional cases, but not in the whole. The morally bad may enjoy great advantages for a long time, and many of the good will perish as their victims, but in the long run the morally bad are sure to perish and only the good can survive.

It is not uncommon to undervalue the import of morality in the struggle for existence, and we took occasion on p. 906 of THE OPEN COURT, to state our view of the subject in opposition to Prof. Huxley, who in his essay of the *Popular Science Monthly* for April had stated that not the best but the shrewdest and toughest survive.

We said in the passage alluded to "Man survived not because of his toughness, or his shrewdness, but because of his moral qualities. The antediluvian fox was perhaps shrewder, and the lion or bear tougher, than the prehistoric savage or man-ape; but they were lacking in the moral faculties which bind single individuals together with the ties of love, of family and of friendship. Moral feelings, or rather the capacity and conditions of the growth of moral feelings, the tendency to reveal moral qualities, made the primitive man sociable. A social animal develops more morally than solitary beings, and the shrewdness of a social being becomes intelligence.

"Intelligence is more powerful as a weapon in the struggle for existence than shrewdness, because it does not lack in morality. Human speech is the product of intelligence and not of shrewdness. Man was able to develop speech only because he was moral enough to be social, and this morality elevated man above the rest of the animal world. Among savage tribes the most intelligent, and not the shrewdest, survived. It is an undeniable fact that in any given district the tribes who were lacking in morality, even

\* Prof. Ernst Mach, "Transformation and Adaptation in Scientific Thought," Part II, to be published in No. 48 of THE OPEN COURT.



when the very shrewdest and toughest, had to go to the wall, while in the end the most moral remained victorious.

"It is a wrong historical view to imagine that the Romans conquered the world because they were shrewder, stronger and more ferocious than their neighbors. They conquered the world because they possessed in addition to strength a rare moral quality—the quality of justice. And even their strength was not the physical force of a ferocious bull, but the moral strength of courage.

"It will thus be seen that morality affords the power to survive, and if the primitive savage was not moral in the present acceptance of the word, he was in his time relatively the most moral being on earth, and this gave him more strength than toughness or shrewdness could ever afford."

We refer the reader to the editorial of the present number, where this subject is more fully discussed. [EDITOR.]

#### NOTES.

Herbert Spencer is working again, though with difficulty, for he says it took him from the middle of March to the first of June to write the article on "The Ethics of Kant," which he will contribute to the August *Popular Science Monthly*. Mr. Spencer combats Kant's idea that only right things done in obedience to duty have moral worth, while the same things done from love of the right in and for itself are morally valueless.

The *Revue Philosophique* for July contains a translation of the above mentioned article *La morale de Kant*.

Our German-American compatriots have again proved their National and true American spirit by a new publication, entitled *Deutsch-Amerikanische Dichtung*, which is published monthly in Newark, Ohio, and New York, (14 Cooper Union). It contains the poetry of German-American poets, and is well edited by Konrad Nies. Contributions from the best German-American authors have appeared in its columns. Number 6, which is just published, contains poems by E. A. Zuendt, Hermann Rosenthal, Max Hempel, Kara Giorg, Ilda Poesche, Adolph Hachtmann, G. Fr. Bauer, and Konrad Nies, the editor. Mr. H. Urban has contributed a short novel.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XIX.—Continued.

All three stood still; the spoons fell into the grass. "We are betrayed," cried Siddy, turning pale. "Away with you, Victor."

"I am an officer, and dare not run away," he replied, shrugging his shoulders. He seized his sword and hastily fastened it.

"You must take it all upon yourself," Benno, exclaimed the sister.

"I would willingly do it," replied he, timidly, "but I have never had any skill in invention."

The Prince dismounted in front of the farm-house, helped by his equerry. The lackey hastened forward to open the doors, and the Prince approached slowly like a threatening storm. He entered the garden, and his sharp eyes rested on the embarrassed Prince and Princess, who stiffly made their obeisances to him.

An ironical smile curled his lip when he saw the dishes on the table. "Who has arranged this country

carnival?" he asked. All were silent. "Answer, Benno," he said, turning sharply to the young gentleman in the blue smock-frock.

"Siddy and I wished to have a little pastime in the meadow before she left our country. I spilled some water over my sister, and she was obliged to change her dress."

"Where is your lady in waiting, Sidonie?" he asked his daughter.

"I begged her to go to her aunt who lives in this neighborhood, and to return in an hour," replied the Princess Sidonie.

"She has not done right in forgetting my commands, in order to gratify yours; and she neglected her duty in exposing the Princess to such an adventure. It is not fitting that princesses should enter village houses alone, and disguise themselves."

The Princess compressed her lips. "My gracious lord and father, forgive me. I was not alone. I had the best protector with me that a princess of our house could have, that was your Highness's son, my brother."

The Prince drew back a few steps, and looked silently into her face; and, so strong was the expression of anger and displeasure in his countenance, that the Princess turned pale and cast down her eyes.

"Has the Princess appointed Prince Victor to be her protector in the peasant's farm?" he inquired. "Has Lieutenant"—he mentioned his family name—"permission to leave the garrison?"

"I came here on horseback without permission," replied Victor, with military composure.

"Report yourself under arrest," commanded the Prince.

Victor saluted and turned away. He unfastened his horse, and, nodding behind the Prince's back, over the hedge, to his cousin, he trotted back to the town.

"Make haste and cease this mummerly," ordered the Prince. "The Princess will drive home in a carriage with the Hereditary Prince."

The young people made their obeisances and left the garden.

"I had a foreboding of this misfortune," said the Hereditary Prince, to his sister, when in the carriage. "Poor Siddy!"

"I would rather be the maid of this countrywoman, and wear wooden shoes, than continue to bear this life of slavery," cried the angry Princess.

"But do not make any remarks at dinner," begged Benno.

The nosegay of wild flowers stood in the bucket, and was torn to pieces in the evening by the countrywoman's cow.

\* \* \*

The day following, the Lord High Steward, von Ot-

\* Translation copyrighted.



tenburg, an old gentleman with white hair, entered the apartment of the Prince.

"I have requested your Excellence to call on me," began the Prince, politely, "because I wish to obtain your advice in a family matter. The day approaches when the Princess will leave us. Have you seen my daughter to-day?" he said, interrupting himself.

"I come from her Highness," answered the old gentleman respectfully.

The Prince smiled. "Yesterday I had to speak seriously to her. The children took into their heads to act an idyl, and I found them in peasants' dresses and in high glee. Our dear Sidy had forgotten that such sport might expose her to misinterpretation, which she has every reason to avoid."

The Lord High Steward bowed in silence.

"But it is not a question of the Princess now. The time has arrived when a decision must be made concerning the next few years of the Hereditary Prince's life. I have thought of his entering one of the large armies, in spite of the consideration due to his delicate health. You know that there is only one empire in which this is possible, and even there unexpected difficulties have arisen. There are two regiments in which one might be certain that the Prince would only have familiar intercourse with the officers of high birth. One of these regiments is commanded by Colonel Kobell, who quitted our service some years ago. It is not fitting to make the Prince his subordinate. In the other regiment an unexpected occurrence has taken place within this last month. A certain Mr. Miller has been introduced into it, contrary to the wishes of the corps of officers. Thus the Hereditary Prince is debarred from belonging to the only army which he could enter."

"Allow me to ask whether this second hindrance might not be removed?" said the Lord High Steward.

"They would gladly do anything to please us," replied the Prince, "but they do not know how to manage it; for the appointment of this unaristocratic lieutenant was made for political reasons."

"Could the difficulty not be removed by giving rank to the family of the lieutenant?" suggested the Lord High Steward.

"That has been cautiously tried, but the father would not consent; and, indeed, your Excellence, the objection would remain the same. You know that I am not a purist in these things, but daily intercourse with such a person would be unpleasant to the Hereditary Prince. Whether Miller, or Von Miller, the dust of the flour would remain."

There was a pause. At last the Lord High Steward began: "The advantages of a military career are certainly undeniable for young princes who have no means or chance of finding other active employment;

but is this course advisable for a future sovereign who needs a preparation for a great career? I remember that in former times your Highness did not take a favorable view of a soldier's life at Court."

"I do not deny that," replied the Prince. "I must acknowledge to you that I still take this view. The usual condition of society is not now that of war, but of peace. The necessary training of a young prince for war undoubtedly develops some manly parts of his character, but delivers him helplessly into the hands of his officials in all essential matters. In confidence, your Excellence, a pleasure in epaulets lasts just during the time of peace; but in case of a great war, where real military talent is requisite, the military dilettanteism of princes, with few exceptions, turns out to be quite useless. All this is undeniable. Unfortunately it is at present no longer fashion that determines a military career for young princes, it is a serious necessity. The times in which we live are such that a strict connection between the Court and armies is inevitable; and what at one time was thought to be unnecessary is now the support of princes."

"I do not see that the position of reigning princes is strengthened by their being bad generals," answered the Lord High Steward. "Indeed, I venture to assert that many of the difficulties which now occur between princes and their people arise from the fact that our princes occupy themselves too much with the shoeing of horses, the training of recruits, and with the prejudices and ill conduct of garrisons, and have too little of the firmness, noble pride, and princely feeling which can only be developed by practice in worthier affairs."

The Prince smiled. "Your Excellence, then, is of the opinion that the Hereditary Prince should visit the University, for there is no other mode of training when he leaves this Court. The Prince is weak and easily led, and the dangers he would incur on this path are still greater than intercourse with officers of inferior grade."

"It is true," interposed the Lord High Steward, "that during the next few years the Hereditary Prince may find certain drawbacks in the advantages of an academy; but with respect to personal intercourse, there are sons of ancient families who are worthy of the honor of associating with the Prince. It would perhaps be easier there for the young gentleman to keep clear of unsuitable society than in a regiment."

"It is not this danger which I fear for him," replied the Prince; "but the unpractical theories and disturbing ideas which are there promulgated."

"Yet we should learn what one has to battle against," rejoined the Lord High Steward. "Does your Highness think, from the varied experience which you have attained through a highly intellectual



life, that an acquaintance with these ideas is so dangerous?"

"Does a person go to hell in order to become pious?" asked the Prince, good-humoredly.

"A great poet having ventured this," replied the Lord High Steward, "wrote his divine poem; and my gracious lord, who himself has always preserved a warm interest in learned pursuits, considers our Universities at best a species of mild purgatory. If an infernal flame should cling to the soil of our illustrious Prince after his return from this place, it will soon be eradicated by the high interests of his princely calling."

"Yes," assented the Prince, with lofty expression, "there is a consecration in the office of princes which fits even a weak man for the great interests which he has to grapple with through his life. But, your Excellence, it is difficult to observe without contemptuous pity the sentimental fools' paradise of the new rulers, and hear the old phrases of love and confidence believed in and spoken of by princely mouths. Undoubtedly these popular ebullitions are transitory, and many of us older ones have once indulged in dreams, and endeavoured to plant green moss where it has been withered by the sun; but the fearful dangers of the present times make such wavering more dangerous to the new rulers, and false steps in the beginning of a reign may often ruin the position of the ruler afterwards."

The Lord High Steward replied apologetically: "It is perhaps well to be wiser than others, but to be more moderate is at no period advantageous. Still a little poetry and youthful enthusiasm may be allowed to our princes; and if I therefore venture to recommend a visit to the University for his Highness, the Hereditary Prince, it is with the satisfactory feeling that in doing so I express your Highness's own opinion."

The Prince looked sharply at the Lord High Steward, and a sudden cloud passed over his brow. "How should you know what my secret thoughts are?"

"That would be quite a vain attempt with your Highness," replied the old courtier, gently, "and it would little benefit an old servant to spy into the secret thoughts of his master. But your Highness has always hitherto given the Hereditary Prince tutors and attendants who were not military. This leads every one to a conclusion respecting your Highness's wishes."

"You are right, as always," said the Prince, appeased. "It is a pleasure to me to find that your views coincide with mine. For it is a serious decision that I have to make; it robs me for a long time of the company of my dear Benno."

The Lord High Steward showed his sympathy by

a silent bow. "Your Highness's decision will undoubtedly produce great changes, for it will at the same time remove all the young people from the Court."

"All?" asked the Prince, surprised. "The Hereditary Prince will depart shortly after the marriage of his sister, but Prince Victor will still remain here."

"Then I humbly beg your pardon," rejoined the Lord High Steward. "I had taken for granted that the departure of the Hereditary Prince would be followed by the entrance of Prince Victor into a foreign army."

"What makes you think that?" said the Prince, with surprise. "I have not the least intention of providing for Prince Victor abroad; he may practice the art of riding in our squadrons."

"In this case his position at Court would be changed," said the Lord High Steward, thoughtfully; "on occasions he would rank and act as the representative member of this illustrious house."

"What are you thinking of," my Lord High Steward?" replied the Prince, captiously.

"Will your Highness graciously explain how that can be avoided? The rights of blood can never be given or taken away. The Prince is the nearest relative of the Royal Family, and the rules of the Court require a corresponding position, and the Court will insist that he be not deprived of it."

"The Court!" exclaimed the Prince, contemptuously; "You might as well say at once, the Lord High Steward."

"The Lord High Steward is appointed by your Highness to watch over the regulations of the Court," replied the old gentleman, with solemnity. "But as my personal opinion, I venture to suggest that service in this capital and the proximity of the Court are not advantageous for the active and energetic spirit of Prince Victor; it may be foreseen that your Highness will often have occasion to be dissatisfied with him, and that the loss of your Highness's favour, considering the lively and popular character of the Prince, may give occasion to continual scandal and malicious talk. Therefore I venture to assume that the considerations which hinder the military career of the Hereditary Prince in a foreign army will have no weight as regards Prince Victor."

The Prince looked down moodily. At last he began, as if convinced: "I thank you for having called my attention to these considerations: I will come to a decision after mature deliberation. Your Excellence may be satisfied that I know how to value the warm sympathy you take in me and mine."

The Lord High Steward bowed and left the room; the furrows deepened in the face of the Prince as he looked after the old man.



The consequence of this conversation was that the Hereditary Prince was sent to the University, where the event did not create so much commotion as was expected at Court.

The Rector, one evening, came to Professor Werner, and after greeting Ilse, began, "You set a good example to your country when you came to us; a communication has been made from head-quarters to the University that in the next term your Hereditary Prince will begin his studies with us." Then, turning to the Professor, he continued: "It is expected that we shall all do that we can, compatibly with the duties of our office, to advance the education of the young Prince. I have to convey to you the wishes of his Highness that you should lecture to the Hereditary Prince in his own room."

"I shall give no Prince's lectures," replied the Professor; "my branch of learning is too comprehensive for that; it cannot be put into a nutshell."

"Perhaps you could lecture on some popular theme," advised the prudent Rector. "It appears to me that greater value attaches to the beneficial effect of your personal intercourse with the Prince than to the contents of your lectures."

"If it is agreeable to the Prince to be in our house, and he will accommodate himself to our habits, I shall show him every respectful and fitting attention. But in my course of instruction I shall make no change on his account. If he attends my lectures as a student, well and good; but I will never give any private lessons in his room or in that of any one else."

"Will not your refusal be regarded as an incivility?" rejoined the Rector.

"It is possible," replied the Professor, "and I must acknowledge to you that in this case it is particularly painful to me. But no personal consideration shall induce me to give up a principle. I have formerly experienced how humiliating it is to have to fashion and fit a serious subject to the comprehension of a boy who has not the necessary preparatory knowledge and the power of grasping and taking a real interest in it. I shall never do it again. But I will do all that I can for this young gentleman, although I must confess that my studies lie far from the high road of princely education. If they wish to learn of us what may be profitable for their future life, they must do so in a regular way, and they should come to us with the preparatory knowledge which alone will make it possible for them to derive advantage from learning. I have here and there observed from a distance how sad is the education of most of them. The shallow and superficial nature of their training, which renders it almost impossible for them to take a warm interest in any domain of intellectual labor, is also of little value for their future life, and gives them little capacity for

their duties as rulers. We participate in inflicting this injury, if we impart a mere varnish of learned culture to youths who have not in truth as much knowledge as a freshman. And that is usually the object. It is not necessary to visit the University in order to become a useful man; but if one enters this difficult path—and I think undoubtedly that every future ruler ought to do so—it should be in a way that will secure valuable results. I do not condemn the teachers who think otherwise," concluded the Professor, "there are undoubtedly subjects in which a succinct presentation of some of the leading principles is possible and profitable. But the study of ancient learning is not of this class, and, therefore, I beg to be excused from giving private lessons to the young Prince."

The Rector expressed his approbation of these principles.

"My poor Hereditary Prince," cried Ilse, pityingly, when the Rector left.

"My poor manuscript," retorted the Professor, laughing.

"But you have made an exception in favor of your wife," rejoined Ilse.

"Here the instruction is only the guide to the elucidation of our whole life," replied the Professor. "Under these circumstances, you will be able to contemplate only from a distance the future Sovereign of Bielstein as belonging to you; and I shall also lose certain faint hopes which I had built upon the passing acquaintance with my father. For it is undoubtedly probable that my refusal will be considered as an act of capricious pride."

The Professor might have been at ease upon this point. Care would be taken that his views should not reach the destination for which they were intended. The sharpness would be blunted, the point broken, for indeed in the higher regions such an idea would be considered so monstrous that it could only be put down to the account of a reprobate man; and this was by no means the case with the Professor.

The Rector was cautious enough to give plausible reasons for Werner's refusal, and at the Prince's palace it was determined that the Hereditary Prince should attend the Professor's lectures. From a syllabus of Werner's lectures a course was selected; it was on the inspection and explanation of casts of antique sculpture, during which the Hereditary Prince and his attendant had at least not to sit among a crowd of colored caps, but could wander about in princely isolation.

*(To be continued.)*

Doubtless all souls have a surviving thought;  
Therefore of Death we think with quiet mind;  
But if we think of being turn'd to nought,  
A trembling horror in our souls we find.

—Sir J. Davies.



## MISCELLANEOUS.

Prof. Alb. H. Gunlogsen, a native of Iceland, was educated at Copenhagen and Rome. He began his study of Sanskrit and Comparative Philology at the University of Naples, under Prof. Lignand, whose tuition Mr. Gunlogsen enjoyed from 1861-66. Mr. Gunlogsen subsequently completed his study of Sanskrit under Prof. Goldstricken of University College, London. Prof. Gunlogsen afterwards acted for several years as Teacher of the ancient and modern Languages in a number of private Schools and Colleges in and near London, England, at the same time occasionally writing essays and translations for a number of British Reviews and Newspapers. Prof. Gunlogsen came to this country in the year 1880. During this interval he has mainly been engaged in teaching the ancient and modern Languages, contributing from time to time short essays and sketches to various American Newspapers. He has translated several articles for Scientific Cyclopedias, etc. Mr. Gunlogsen is the first man who has ever ventured to teach Sanskrit in the City of Chicago. The winter before last he was able to form a small class consisting of four Professors of the North Division High School. Mr. Gunlogsen will continue to teach Sanskrit in Chicago during next winter. In his teaching he follows the Text books introduced by American Sanskrit scholars. Lanman's Reader and Perry's Primer and Prof. Whitney's Grammar.

We have for some time been in receipt of a paper by Mr. Frederick Gerbard of New Jersey, entitled: "*Should the Death-Penalty not be abolished in those States of the Union where it is still in vogue?*" which we take favorable opportunity to present in extracts. Mr. Gerbard reviews the history of the abolition of the death-penalty in these words: "The first step of the abolition of death-penalty was made in 1764, by the celebrated Italian criminal-lawyer Beccaria, the champion against capital-punishment, by proving that this penalty had never deterred criminals from inflicting harm upon society. But a long time elapsed before his endeavors bore the first fruits. In Tuscany the death-penalty was abolished in 1786, and in Austria in 1787. It was, however, re-enacted in Tuscany, in 1852, but this roused such a storm of indignation, that the Government found itself forced to annul it once more. In Austria it was also re-enacted. In Germany the National Assembly of 1848 passed a resolution of abolition, which was put into effect in Oldenburg, Bremen, Nassau, Anhalt and the Kingdom of Saxony, but not permanently; for, at the establishment of the German Empire, when the reaction gained full power that resolution of the National Assembly of 1848 was annulled; and, since that time, intelligent Germany can again be proud of the fact that in its domain murder will again be committed *de jure*. In Switzerland the death-penalty has been abolished in several Cantons, but has been re-enacted in some of them. In Holland it was abolished in 1870; and the same has been done in Portugal, Belgium and Roumania. Among the states of the American Union it was abolished in 1846 in Michigan, in 1852 by Rhode Island, and in 1853 by Wisconsin. The remaining states and the remaining foreign countries have not yet been able to attain the moral elevation requisite for this act of humanity, though in the States of Maine, Minnesota, Indiana and Vermont the law prescribing the death-penalty must be considered a dead letter, as no executions have taken place there for years. In 1887 the Central-American States Honduras, Costa Rica, Nicaragua, and Guatemala entered into negotiations for forming a Union, similar to the United States, with the express condition, that the death-penalty in those states should be abolished." The Legislature of the State of New York has recently substituted execution by electricity for hanging. Upon this Mr. Gerbard asks: "But is not the death-penalty in itself an inhumanity, a cruelty and a barbarism, belonging to former dark ages? Is not each and every mode of

carrying out the death-penalty, be it by hanging, decapitation, shooting, garroting, electricity, poison or any other way a *willful* killing, a murder? Should not our century, which has abolished the inhumanity and barbarism of slavery, following the example of Rhode Island, Michigan and Wisconsin, abolish also the inhumanity and useless barbarism of the death-penalty in all the other States of the Union, showing to the world by this new step forward, that the United States in every respect are at the head of civilization?" The writer believes that the arguments which he advances are so strong and indisputable that even those who have hitherto thought the death-penalty indispensable will now come to another conclusion. "The Bible says: 'He who sheddeth man's blood, by man shall his blood be shed.' But on the other hand, the Bible also says: 'Thou shalt not kill,' and we find here two passages diametrically opposed to each other, so that the advocates as well as the opponents of the death-penalty can base their arguments on the Bible. The penal code has several theories for the death-penalty—namely, determent, retaliation, revenge, satisfaction for the state, and security for the state. The three latter have been pretty well abandoned, and the justification of the death-penalty is now mainly based on the theory of deterring by intimidation, insisting or supposing that an execution must be a warning to others not to commit a similar crime. But the penal code recognizes still another theory as the warrant for punishment *in general*, and that is the reformatory theory—the only one which is morally justified, but which cannot be considered in the case of a death-penalty; because, if a person be executed, there can be no intention of reforming him, and if we hang a man we deprive him, through violence, of all possibility of reformation; we rest satisfied with simply taking his life, murdering him. According to the first passage: 'He who sheddeth man's blood, by man shall his blood be shed,' in the death-penalty merely a remnant of 'vendetta' is exercised. \* \* \* I repeat, the foremost and only moral end of any punishment is the reformation of the criminal; and for this high purpose capital punishment does not answer, but has even the diametrically opposite effect. \* \* \* That the death-penalty as a means of deterring from crime is a complete mistake; that, on the contrary, the abolition of the death-penalty lessens the number of the worst crimes, whilst executions increase them, is proved by the experience of various countries. In Holland no parricide or matricide was committed in the ten years following the abolition, whilst these crimes occurred frequently in the fifty years preceding the abolition. In Tuscany it was shown that the abolition of the death-penalty led to no increase in the number of the crimes considered worthy of death; and the same result has followed the abolition in some States of the Union. An English prison-chaplain, who during his official career prepared 167 criminals for execution, has testified that of these 167 persons, 161 had been proved to have witnessed executions. There is evidence that people who had just seen an execution, only a few hours afterward, themselves committed murder. Can one, in the face of such testimony claim any validity for the theory of deterring by intimidation? Considering the frightful brutality in the intentional killing of a human being, considering the profoundly demoralizing effect which executions entail, and, from their very nature, must entail, one can indeed not wonder that their result is not a decrease, but an increase of heinous crimes. \* \* \* But executions have still another dark side: it consists in the blasphemy of the priests. They represent to the condemned that they will enter now directly into heaven, and be received by Christ; there stands the culprit, instead of being deeply humiliated by the sense of his criminality, actually jubilant, and rejoicing that he will soon be with Christ, and that Christ will receive him with all glory! Is not that rank blasphemy? The priests who seduce these miserable sinners to such fantastic visions, ought, instead, to exert all their influence to induce them to really repent of their bloody deeds. Such a conversion, at the moment of going to the gallows, is utterly worthless, and nothing but a self-deceit and a deception of others."



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GEORG VON GIZYCKI.

In Nos. 25 and 26 is presented a very scientific article entitled "Determinism versus Indeterminism," by Georg Von Gizycki, Professor of Philosophy at the University of Berlin. This is in answer to Professor William James of Harvard University, who, in a lecture published in the *Unitarian Review*, had maintained the doctrine of *indeterminism*. The whole inquiry relates to the Freedom of the Will, and the terms are thus explained:

"The question whether the actions of the will are phenomena which act in conformity to a law, admits of only two answers—yes and no.

The philosophic theory which holds that they do, has been called *Determinism*; that which says they do not is known as *Indeterminism*."

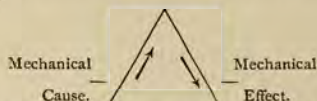
The argument, which is deeply philosophical throughout, and in some parts of it a demonstration, proceeds upon the theory that the human will is under the control of law, and that its actions are *determined* by necessity; that Freedom of the Will is never an accident, nor the offspring of caprice; that the reformation of an evil-doer is made by surrounding him with conditions whose laws will compel his will to act in the right way.

C. K. WHIPPLE.

"Progressive Orthodoxy," by C. K. Whipple, in No. 25, is a very keen and rather sarcastic censure on "The American Board of Commissioners for Foreign Missions." The said "Board" declined to comply with the request of their missionaries to make a few changes in the plan of saving the savages. These Innocents, it was experienced, object in an absurd benevolence to the plan of eternal damnation, so as to be lost for Christianity. Mr. Whipple, it seems, did not consider that the Board could not have acted otherwise, for it would have been an outright confession that the savages had converted the missionaries, a most illogical and very improper thing to do.

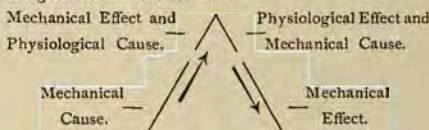
G. H. SCHNEIDER.

In No. 24 will be found an essay of profound and radical thought on "Reflex Motions" by G. H. Schneider. The chaos of the old psychology is cleared since modern psychology begins to discover the laws which govern the intellectual domain of the soul. Schneider shows that the activity of the mind can be resolved into pure reflex actions, and illustrates his view in the following diagrams:

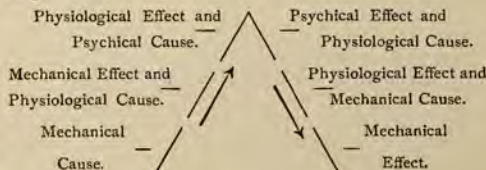


A mechanical cause, say the pressure of a limb, produces a mechanical effect, viz., the motion of the limb.

The physiological aspect is more complicated. The mechanical cause (say the pressure of a limb) causes a mechanical effect (for instance, a compression of flesh). This mechanical effect produces a physiological cause (viz., a change of the chemical constituents in the muscle and nerve tissues). This physiological effect produces a mechanical cause (which may be a cramp of the muscle), and accordingly it causes as a further mechanical effect a prolonged contraction of the limb. The diagram for a physiological reflex motion is thus:



The psychical reflex motion superadds the element of consciousness. A mechanical cause (say somebody receives a blow on his arm) produces a mechanical effect. This mechanical effect causes a physiological effect in the muscle and nerve tissues, which again is the cause of a psychical effect, as pain is felt. This psychical effect causes another psychical effect, which may result in a state of anger and desire for vengeance. This psychical effect again is the cause of a physiological effect. It acts on the motory nerves, which in their turn causes the motory muscles to contract and retaliate the blow. The blow returned is in this case the mechanical effect of the first mechanical cause, i. e. the blow received. The following diagram will explain it more fully:





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## TRANSFORMATION AND ADAPTATION IN SCIENTIFIC THOUGHT.\*

AN INAUGURAL ADDRESS DELIVERED UPON ASSUMING THE  
RECTORATE OF THE UNIVERSITY OF PRAGUE,  
ON OCTOBER 13, 1885.

BY ERNST MACH.

Part II.

*Translated from the German by J. H. M.*

Let us consider a mental transformative process more in detail. The circumstance that heavy bodies fall to the earth appears perfectly regular and natural. But when a person observes that wood floats upon water, and that flames and smoke rise in the air, then the contrary of the first phenomenon presents itself. An olden theory attempts to explain these facts by imputing to substances the power of volition, as being that attribute which is at the freest disposal of man. It asserted that every substance seeks its proper place, heavy bodies tending downwards and light ones upwards. It soon turned out, however, that even smoke had weight, that it too sought its place below, and that it was forced upwards only because of the downward tendency of the air, as wood is forced to the surface of water, because the water exerts the greater downward pressure.

Again, we see a body thrown into the air. It ascends. How is it that it does not seek its proper place? Why does the velocity of its "compulsory" motion decrease as it rises, while that of its "natural" fall increases as it descends. If we closely mark the relation between these two facts, the problem will solve itself. We will see, as Galileo did, that the decrease of velocity in rising and the increase of velocity in falling are one and the same phenomenon, viz, an increase of velocity in the direction of the earth. Accordingly, it is not a place that is assigned the body; it is an increase of velocity towards the earth, which is impressed upon it.

Through the agency of this idea the movements of heavy bodies become perfectly familiar. And Newton, firmly grasping this new way of thinking, sees the moon and the planets moving in their paths upon principles similar to those which determined the movements of the projectile thrown into the air. Yet the movements of the planets were marked by certain peculiarities which compelled him once more to modify partly his customary mode of thought. The heavenly bodies, or rather the parts composing them, do not

persist in a fixed rate of speed while acting upon one another; they "attract each other," directly as the mass and inversely as the square of the distance.

This latter notion which includes the one applying to terrestrial bodies as a special case, is, accordingly, quite different from the conception we started with. How limited in scope was the original idea and to what a multitude of phenomena is not the present notion applicable! Yet there is a trace of the "search for place" in the very expression "attraction." And it would be folly, indeed, for us to avoid, with punctilious dread, this conception of "at-traction" as bearing traces of its pedigree. It is the historical base of the Newtonian conception and it still continues to direct our thoughts in the paths so long familiar to us. Thus, the happiest ideas do not fall from heaven; they spring rather from notions already existing.

Similarly, a ray of light was first regarded as a continuous and unvarying straight line. It then became the path of projection for minute missiles; then an aggregation of the paths of countless different kinds of missiles. It became periodic; it acquired various phases; and ultimately it even lost its motion in a straight line.

The electric current was conceived originally as the circuit movement of an hypothetical fluid. To this conception was soon added the notion of a current produced by chemical causes; and the notion of an electromagnetic and anisotropic-optical field of force, intimately connected with the path of the current. And the richer a conception becomes in following and keeping pace with facts, the more adapted this conception is to anticipate them at the proper time.

Adaptive processes of this kind have no assignable beginning, inasmuch as every problem that incites to new adaptation, presupposes a fixed and habitual method of thought. Moreover, they have no visible termination; in so far as experience never ceases. Science, accordingly, stands midway in the evolutionary process; and science may advantageously direct and promote this process, but it can never take its place. That science is inconceivable the principles of which would enable a person without experience to construct the world of knowledge, without having known it. One might just as well expect to become a great musician, solely by the aid of theory, and with-

\* Translation copyrighted.



out musical experience; or to become a painter by following the directions of a text-book.

In glancing over the history of an idea with which we have become perfectly familiar, we are no longer able to appreciate the full significance of its growth. The deep and vital changes that have been effected in the course of its evolution, are recognizable only from the astounding narrowness of view with which great contemporary scientists have occasionally opposed each other. Huyghens's wave-theory of light was incomprehensible to a Newton, and Newton's idea of universal gravity was unintelligible to a Huyghens. While a century afterwards it came about that both notions were reconcilable even to ordinary minds.

On the other hand, the original creations of pioneer intellects, unconsciously formed, do not assume a foreign vesture; their form is their own. In them, childlike simplicity is joined with the maturity of manhood, and they are not to be compared to processes of thought in the average mind. The latter are carried on as are the acts of persons in states of mesmerism, where actions involuntarily follow the images which the words of other persons suggest to their minds.

The ideas that have become most familiar through long experience, are the very ones to intrude themselves into the conception of every new fact observed. In every instance they thus become involved in a struggle for self-preservation, and it is just they that are seized by the inevitable process of transformation.

Upon these facts rests substantially the method of explaining by hypothesis new and uncomprehended phenomena. Thus, instead of forming entirely new notions to explain the movements of the heavenly bodies and the phenomena of tides, we imagine the material particles composing the bodies of the universe to possess weight or gravity in their relations to each other. Similarly, we imagine electrified bodies to be charged with fluids that attract and repel, or we conceive the space between them to be in a state of elastic tension. In so doing, we substitute for new ideas the distinct and more familiar notions of former experience— notions which to a great extent run unimpeded in their courses, although they too must suffer partial transformation.

The animal cannot construct new members to perform every new function that circumstances and fate demand of it. On the contrary it is obliged to make use of those it already possesses. When a vertebrate animal chances into surroundings where it must learn to fly or swim, an additional pair of extremities does not grow for this purpose. On the contrary the animal must adapt and transform a pair that it already has.

The construction of hypotheses, therefore, is not the product of artificial scientific methods. This pro-

cess is unconsciously carried on in the very infancy of science. Even later, Hypotheses do not become detrimental and dangerous to progress except when more reliance is placed in them than in the facts themselves; when the contents of the former are more highly valued than the worth of the latter, and when, rigidly adhering to hypothetical notions, we overestimate the ideas we possess as compared with those we have to acquire.

The extension of our sphere of experience always forces a transformation of our ideas. It matters not whether the face of nature becomes actually altered, presenting new and strange phenomena, or whether these phenomena come to light through an intentional or accidental turn of observation. In fact, all the many different methods of scientific inquiry, and of intended mental adaptation enumerated by John Stuart Mill, those of observation as well as those of experiment, are ultimately recognizable as forms of one fundamental method, the method by change. It is through change of circumstances that the natural philosopher learns. This process, however, is by no means confined to the investigator of nature. The historian, the philosopher, the jurist, the mathematician, the artist, the æsthetician, all illuminate and unfold their ideas by delving into the rich treasures of memory and producing similar, yet different, cases; thus, they observe and experiment in their thoughts. Even if all sensory experience should suddenly cease, the events of former times would alternately encounter each other in our consciousness and the process of adaptation would still continue—a process which, in contradistinction to the adaptation of thoughts to facts in practical spheres, would be strictly theoretical, as it is an adaptation of thoughts to thoughts.

The method by change introduces to us analogous cases of phenomena, which have elements partly the same and elements partly different. It is only through comparing different cases of refracted light at changing angles of incidence that the common factor, or the constant ratio which exists between the angles of incidence and refraction, is disclosed. And only by comparing the different degrees of refraction which light of different colors suffers, does the difference of refrangibility, or the inequality of the indices of refraction, arrest attention. Comparison based upon change leads the mind simultaneously to the subtlest abstractions and to the finest distinctions.

Without doubt, the animal is also able to distinguish the similar and dissimilar of two cases. Its consciousness is aroused by a noise or a rustling, and its centre of motility is placed in readiness. The sight of the creature causing the disturbance will, according to its size, provoke either flight or prompt pursuit; and in the latter case, the more exact distinctions will



determine the mode of attack. But it is only man that attains to the faculty of voluntary and conscious comparison. Man alone can in one moment by his power of abstraction rise to the comprehension of principles like the indestructibility of matter and the conservation of energy, and in the next observe and mark the arrangement of the iron lines in the spectrum. In thus proceeding with the subjects of his conceptual life, his ideas unfold and expand, like his nervous system, to a widely ramified and organically articulated tree; he may follow every limb to its farthest branches and, as occasion demands, return from the point attained to the trunk from which he started.

The English philosopher Whewell has asserted that for the development of natural science, two factors must co-operate: ideas and observations. Ideas alone dissipate into speculation; simple observations afford no organic knowledge. We see in fact that the whole thing depends upon the capability of adapting existing notions to fresh observations.

Over-readiness to yield in the face of every new fact prevents all fixed habits of thought from arising. Excessively rigid habits of thought impede freedom of observation. It is in the struggle and in the compromise between judgment and prejudgment (prejudice) that our understanding of things widens.

An habitual judgment, applied to a new case without having been antecedently tested, we call a pre-judgment (prejudice.) Who does not know its fearful power! Less often, indeed, do we think of how important and necessary the prejudgment can be. Nobody could exist in a physical sense if he had to guide and regulate the circulation, respiration and digestion of his body by conscious and premeditated acts. So, too, no one could exist in an intellectual sense if he were constrained to pass judgment upon all that he experiences instead of allowing himself to be controlled by the judgments he had already formed. The pre-judgment (prejudice) is a sort of reflex-motion in the province of intelligence.

Upon pre-judgments, *i. e.*, upon habitual judgments which are not tested in respect of applicability in every instance, rests a goodly part of the intellectual work and of the practical manipulations of the natural scientist. Upon pre-judgments rest the majority of the acts of society. With the sudden disappearance of pre-judgments society itself would helplessly dissolve. That prince displayed a deep insight into the power of intellectual habit, who quelled the loud menaces and demands of his body-guard for arrears of pay and compelled them to turn about and march, by simply pronouncing the usual word of command; he well knew that they would be unable to resist that.

It is not until the departure between habitual judgments and facts becomes great that the investigator

falls into appreciable deception. Then do tragic complications and catastrophes enter into the practical life of individuals and nations—crises where man, placing custom above life instead of pressing it into the service of life, becomes the victim of error. The very power which in intellectual life, advances, fosters and sustains us, may under other circumstances delude and annihilate us.

\* \* \*

Ideas are not the whole of life. They are but like a momentary efflorescence of light, designed to illuminate the paths of the mind. Our ideas act as the most delicate of reactions upon our organic evolution. No theory can dispute the vital transformation which we feel taking place within us through their agency. Nor is it necessary that we should have a prior proof of this process. We are immediately assured of it.

The transformation of ideas thus appears as a part of the common evolution of life, as a part of the process of adaptation to an ever growing sphere of activity. A granite boulder on a mountain side tends steadily towards the surface of the earth below. But it must abide in its bed for thousands of years before its resting-place gives way. The shrub that grows at its base is farther advanced; it accommodates itself according to summer and winter. The fox which, overcoming the force of gravity, creeps to the summit where he has scented his prey, is more unconstrained in his movements than either. Yet the arm of man extends still further; scarcely anything of moment that happens in either Africa or Asia, passes us by without leaving an impression upon our lives. What an immense portion of the life of other men is reflected in ourselves; their joys, their affections, their happiness and misery! And this too, when we survey only our immediate surrounding, and confine our attention to modern literature. How much more do we experience when we travel through ancient Egypt with Herodotus, when we stroll through the streets of Pompeii, when we carry ourselves back to the gloomy period of the crusades or to the golden age of Italian art, now making the acquaintance of a physician of Molière, and now of a Diderot or a D'Alembert. What a great part of the life of others, of their character and their purpose, do we not absorb through poetry and music! And although they only gently touch the chords of our emotions, like the memory of youth softly breathing upon the spirit of an aged man, we have nevertheless lived them over again in part. How great and comprehensive does self become in this conception; and how insignificant, the person! Egoistical systems of optimism and pessimism perish with their narrow standard of the significance of intellectual life. We feel that the real pearls of life lie in the changing content of consciousness, and that the person is but like



an indifferent and symbolical thread on which they are strung.\*

We are prepared then to regard ourselves and every one of our ideas as the product and the subject of general evolution; and in this way we shall advance sturdily and unimpeded along the paths which the future will throw open to us.†

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.‡

BY FELIX L. OSWALD, M. D.

Part XII.

#### HEREDITY—Continued

The intellectual types of nations, as of individuals, are more plastic than their moral characteristics. Experienced educators well know that mental precocity is by no means an invariable indication of genius, and that the dunces of the spelling-class may graduate with the highest honors, while early evidence of moral turpitude is a much more serious omen.

"The fruits of genius ripen late," says Schopenhauer, "and there is nothing humiliating in the confession of intellectual backwardness, but few people would care to admit the moral obliquity of their earlier years. We would justly doubt the correctness of a statement that so and so was notoriously a mean and malicious boy, but has now become a moral exemplar."

It is impossible to mistake the significance of the fact that the influence of heredity, too, is much more frequently illustrated in moral than in mental peculiarities. Peasant-boys may become the intellectual aristocrats of their nation, but convict-colonies are not prolific of saints. Some biologists have, indeed, gone so far as to deny the possibility of eradicating hereditary vices by means of education, and to advocate the enforced celibacy of criminals. Miss Martineau held the re-appearance of paternal disposition to special crimes a mere question of time, and unhesitatingly ascribed the apparent exceptions from that rule to the influence of fear or hypocrisy. "In the far-reaching influences that go to every life," says the Rev. Robert Collyer in his sermon on "The Thorn in the Flesh,"

\* We must not allow ourselves to fall into the deception of believing that the happiness of other people is not a very considerable and essential portion of our own. It is common capital, which cannot be created by the individual and which does not perish with him. The formal and material limitation of the *Ego* is necessary and sufficient for only the crudest practical objects, and will not stand in this conception. Humanity in its entirety is like a polyp-plant. The material and organic bonds of individual union have, indeed, been severed; they would only have impeded freedom of movement and evolution. But the ultimate aim, the psychical connection of the whole, has been attained in a much higher degree through the more luxuriant development which has been thus made possible.

† C. E. von Baer, the scientist who first formulated the idea of evolution, and the subsequent opponent of Darwin and Haeckel, has aptly discussed this point in two addresses, entitled: "Das Allgemeine Gesetz der Natur in aller Entwicklung," and "Welche Auffassung der lebenden Natur ist die richtige, und wie ist diese Auffassung auf die Entomologie anzuwenden?" In these remarkable essays he has exposed the narrowness of the view which regards an animal in its existing state as finished and complete, instead of conceiving it as a phase in the series of evolutionary forms and regarding the species itself as a phase of the development of the animal world in general.

‡ Translation copyrighted

"children are often born with appetites almost fatally strong in their nature. As they grow up, the appetite grows with them; and speedily becomes a master, the master a tyrant; and by the time he arrives at manhood, the man is a slave. I heard a friend say that for the last eight-and-twenty years the soul within him had to stand like an unsleeping sentinel, guarding his appetite for strong drink. To be a man at last under such disadvantages, not to mention a saint, is as fine a piece of grace as can well be seen. There is no doctrine that demands a larger vision than this of the depravity of human nature. Old Dr. Mason used to say that, as much grace as would make John a saint would hardly keep Peter from knocking a man down."

It would be preposterous to deny that time and altered circumstances can modify and, in the course of generations, perhaps eliminate, a hereditary predisposition to crime, just as similar influences have undoubtedly eliminated what pathologists call an "hereditary diathesis" to certain chronic diseases. In the climate of our western prairies the progeny of consumptive ancestors have enjoyed a lifelong immunity from pulmonary disorders, and in the course of six or seven generations the children of Botany Bay felons may become law-abiding citizens, if not paragons of civic virtue. But it remains true that under all possible varieties of educational influences, the moral (far more than the mental) characteristics of individuals resemble those of their immediate ancestors.

Transcendent talents are but rarely transmitted from father to son, so rarely, indeed, as to have tempted many biologists to infer the "genealogical barrenness of genius"; but history abounds with instances of the hereditary transmission of peculiar passions, vices and virtues. A British biographer's assertion that "no son was more unlike his father than the great Frederic was to his uncouth sire," is true only in regard to intellectual characteristics. Between the philosophical tastes of the Sansouci freethinker and the narrow bigotry of his predecessor there is indeed, an almost unparalleled contrast, but in many other respects Frederic the Second was unmistakably "the son of his father." He shared his obstinacy of purpose, his self-dependence, his mistrust of neighbors and relatives, his "passion for meddling," for financial retrenchments and even for arbitrary innovations and executive deeds of violence. Wolfgang Goethe, with all his cosmopolitan tendencies and encyclopedic erudition, was not quite free from the practical pedantries of his prosaic father. The headstrong passions of Henry de Guise can be traced through a long lineage of his ancestors. Mirabeau, the great freethinker and orator, the "Alcibiades of the French Revolution," was the son of an intellectual philistine, but the moral dynamics that blazed aloft in the great



eruption of a political volcano, had for ages fired the domestic and municipal passions of the Riquettis, "a race of grandiose characters," as St. Beuve informs us, "*une race des caractères d'une originalité grandiose et haute.*"

Oliver Cromwell was the descendant of a family whose factious propensities had been for generations suppressed by a combination of political and clerical despotism, but which, nevertheless, produced two men as eminent as Hampden, the fearless patriot, and Edmund Waller, the poet and passionate orator. The heartless and brainless monster-tyrant Nero, was a scion of the Claudian race, a family prolific of headstrong men of rather varying intellectual abilities, but all remarkable for the violence of their passions, their unscrupulous ambition and their reckless vindictiveness. Lord Byron's father was not a man of poetical, or even of literary tastes, but his eccentricities fully equaled those of his wayward son, whom he resembled even in his penchant for traveling and the emotional demonstrativeness of his friendships and enmities. The poet's mother, "the Newstead virago," deserved her sobriquet by her virulent passions, rather than by the vigor of her intellect. She dawdled away her leisure in gossip and the gratification of whims that often made her neighbors doubt her mental sanity; but she had a full share of her son's sensitive pride. "She had no more self-control than a child," says Mrs. Caroline Ellis, "and if ever there was a case in which hereditary influences, arising out of impulse, passions and habits of life, could excuse eccentricities of character and extremes of conduct, this excuse must be pleaded for Byron, as having descended from a line of ancestry, distinguished on both sides by everything calculated to destroy all harmony of character, all social concord, all individual happiness."

The poet's grandfather had served with distinction both in the army and navy, and rose to the rank of admiral, but he, too, was a man of headstrong passions, and his penchant for braving the perils of the sea in any sort of wind and weather had earned him the sailor-nickname "Foul Weather Jack."

A phenomenal case of mental, moral and emotional analogies in father and son, is that of the two Scaligers, both men of great natural abilities and of almost unparalleled erudition. Yet it is doubtful if the literary fame of the elder Scaliger would have outlived his century without the prestige of his greater son. He had neither the refined taste nor the infallible critical acumen of his immortal pupil, but the identity of their moral propensities and caprices in all curiosities of detail, could hardly have been more absolute. Both were excessively vain, both morbidly sensitive and impatient of contradiction, both were incurably addicted to "controversion for its own sake," picking

literary quarrels for the mere purpose of indulging their passion for criticism, and, of course, making no end of open and secret enemies. Both contrived to reconcile the profession of liberal principles with supercilious manners and an overbearing treatment of domestic and official subordinates, yet withal, both were capable of passionate attachments, and were pedantically scrupulous in the fulfillment of every official obligation. They both were chivalrously constant in their friendship but treated the fairer sex with rather more than cynical ungalantry. Julius (the elder) Scaliger increased the list of his enemies by satirizing the foibles of his female contemporaries and married late; his son Joseph refused to answer the letters (even scientific inquiries) of his lady correspondents, and never married at all.

The records of biography furnish only three authentic instances of the hereditary transmission of abnormally developed mental faculties: 1. Sebastian Bach, the great composer, and his son Charles Emanuel Bach, the founder of modern piano-forte music, and like his father an originator of inimitable harmonies; 2. The elder and younger Pitt, both orators of transcendent ability; 3. The two Senecas, Lucius Seneca, the philosopher, whose abnormal memory enabled him to achieve success in the simultaneous pursuit of literature, politics and commerce. He was at once the greatest scholar and the most sagacious statesman of his age, and amassed a fortune of untold millions, but his distinctive faculty was equalled only by that of his father, the Spaniard Marcus Seneca, whose memory enabled him to repeat *two thousand words* in the order he heard them, and irrespective of their meaning or connection.

Equally peculiar moral characteristics, on the other hand, have often been transmitted through a long series of generations. There have been genealogies of misers and long lineages of pickpockets and misanthropes, spendthrifts and bigots, and even of pessimists, whose life-weariness at the approach of a certain age, culminated in a monomania for self-destruction, or even in actual suicide. Our Spanish-American neighbors do not deal in elaborate statistics, yet the mere sensational atrocity of successive crimes enabled a Mexican jurist to trace the genealogical record of the bandit Vittorino Cardenas, who in 1869 was executed for the butchery of a party of unsuspecting tourists, to whom he had volunteered his services as a mountain-guide. It was shown that a remote ancestor of this man had fled from Spain to avoid indictment for a heinous crime, which he afterwards expiated by the bravado of his military exploits. He was not only pardoned, but acquired political influence enough to secure a commutation of sentence in favor of his son, who had plundered and murdered several native pris-



oners, and who subsequently became the leader of a band of outlaws, a dignity which after his death on the gallows was transferred to his grandson, whose father (the son of the gibbeted brigand) had been killed in a fight with the escort of a *conduta* or silver-train. Vittorino was the grandson of that bandit-chief, and his father, a strolling miner, was the only representative of six successive generations who was not positively known to have taken the field against the party of law and order.

Dr. Esquirol describes the "suicide-mania" as a special form of hereditary insanity, and estimates that four out of ten self-murderers act under the impulse of a moral predisposition, rather than of physical disorders, or the haunting memory of a severe bereavement. Drunkenness and the proneness to sexual excess have characterized special families for centuries and at last led to the extinction of their lineage. A passion for gambling is said to be hereditary in a certain illustrious family of Hungarian nobles, and more than one great house of mediæval aristocrats owed its downfall to an incurable penchant for financial extravagance. Dr. Esquirol mentions a case of a father, son and grandson, falling victims to a preposterous propensity (a true mania, in fact) for duels; but a still stranger instance is that quoted by Prof. Proctor from the memoirs of Dr. Lucas, who informs us that "a man in Scotland had an irresistible penchant for cannibalism, and his daughter, although removed from her parents, who were both sent to the stake before she was a year old, and although brought up among respectable people, this girl, like her father, yielded to the horrible craving for human flesh." A fondness for procrastination (laziness, in plainer English) is so notoriously hereditary that experienced work-masters generally refuse to employ the son of an indolent man. "Nemo repente fuit turpissimus" is a proverb that applies to families, as well as to individuals; and occasional exceptions justify the suspicion by which Erotius explains the phenomenal depravity of the tyrant Domitian: "Vespasian may have *mistaken* him for his son."

#### TRAGEDY AND THE PROBLEM OF LIFE.

Art is no mere trifling and playing, attractive and charming though its works may be. Its object is grand and serious, and its aim is not inferior to that of science.

Art and science both reveal the secrets of nature, but they adopt different methods. While science inquires into the various provinces of nature under the guidance of induction and deduction, art, intuitively grasping the idea of the whole and representing nature in single examples, gives a clew to the enigma of the world.

Every object of art is a microcosm—a little world in itself, which means, it forms an orderly arranged unity. Unity is the first and principal rule of art, which by all variety should never be neglected in any artistic production. The rule of unity teaches us that there is law and order in the microcosm of an artistic representation and at the same time suggests that the same order can be found in the macrocosm. In the creations of his imagination the artist explains the problem of the world. In his works every part must be understood through the whole, and the whole is revealed in its parts. Thus in the world and in life every single thing or being, its form, its aspect, its purport, must be interpreted as a part of the whole or as one phase in the development of all-existence. With regard to this, the Romans called a poet *vates*, seer or prophet. The poet is a priest of humanity. And, truly, of every real artist and poet one must aver, as Goethe makes Wilhelm Meister say about Shakespeare, "It is as though he revealed all the secrets of life, and yet one cannot say that this or that passage contains the solution of the riddle."

Poetry is generally considered as the highest art, if a gradation of the arts is allowable at all. Music and Dancing, Painting and Sculpture and other arts exhibit a harmonious order in the rhythm of sounds or movements and in the harmony of colors or figures; they are most powerful and effective, but they do not rise to the clear conceptions of poetry, which expresses human sentiments in words and thoughts. The drama is again considered as the highest kind of poetry and among dramas the tragedy takes precedence as the profoundest, the most dignified and most philosophic representation of human life.

Not every tragical drama is a tragedy. German æstheticians make a distinction between a *Trauerspiel* and a *Tragödie*. The tragical drama is any representation on the stage which produces mournful and inauspicious dramatic actions, while the essential feature of a tragedy must be found in the psychical development of the acting persons. The complication of the plot brings about an entire change of situation (what Aristotle calls the *peripeteia*), leading to the catastrophe. By the crisis, however, a psychical change takes place also. The acting persons, especially the hero of the drama, take another and a higher view of life and of their ideals. While the hero suffers and even dies, his ideals grow and expand. A tragical drama may represent the disastrous consequences of vice or folly only; a tragedy reveals the law of evolution which leads through toil and sacrifice to the victory of a lofty idea.

From the time of Aristotle the tragedy has been considered as the highest kind of art, perhaps because the tragic poet digs down to the deepest problem of



human life: Why must the innocent suffer and why are the heroes of humanity martyrs of human ideals?

One of the greatest problems of æsthetics has been the question: How can we derive pleasure—and the noblest kind of pleasure, too—from observing, on the stage, representations of tragic events? We condemn cock fights and gladiator shows; but it is a noble pastime to witness the sufferings of a hero in a theatre. Is it not because the hero suffers for a Cause, and the spectators learn from him how to live, to suffer and to struggle?

There is a law of life and of the evolution of life; and we cannot understand one phase of life without taking into consideration the law which pervades the whole. The three chief stages of psychical growth are designated by the three views of life: 1, *optimism*; 2, *pessimism*; and 3, *meliorism*.

The human being in his youth is optimistic; but when a man encounters worldly evils, when care preys upon him, sorrows worry him, and want and illness harass him, when the solemnity of death impresses his soul with fear of the unknown future, then a crisis arises in the psychical development: the catastrophe of pessimism destroys the optimistic delusions of early years, and it is but with heartrending struggles that man regains the lost balance of his aspirations in establishing a purified, a higher view of life which we call *meliorism*.

In the phase of *optimism*, man enjoys life and accepts it as a boon which has value in itself. We live simply for the pursuit of happiness. Optimism is the ingenuous conception of the child and of childlike natures. In the phase of *pessimism*, man despairs of ever being successful in his pursuit of happiness. Man learns that if happiness is the sole purpose and aim of life, life is a failure and life is not worth living. But pessimism is not the end of all worldly wisdom. *Meliorism* is taught by the martyrs of truth who suffer at the stake and the heroes of progress who die on the field of battle; they have lived a life that was well worth living. It is not life but the contents of life, our actions done, our deeds performed, and our ideas thought, that have value. Life is valuable because it is an occasion to work and to struggle, to advance and to progress. The phase of *meliorism* recognizes that the purpose of life lies beyond the narrow sphere of the ego; the value of life lies in our ideals, which will live after us, which, indeed, are worth living and toiling and striving for.

The highest art represents man as struggling for and aspiring to noble ideals, it exhibits the development from a naïve, childlike existence through the crucial test of evil, error and failure, through misery and terror of death to the conscious and manly standpoint of *meliorism*. Such a representation is the tragedy. It

is not essential that the hero should die, but it is necessary that he should pass through a process of trial and purification. Thus the hero has become another man. In spirit he is new-born, and takes a new and deeper view of life and its import. The crisis of pessimism has matured his mind, and even should he die, his ideal lives; vanquished, his ideal is victorious!

In this manner the doctrine of *meliorism* sheds a new light on Tragedy and explains most clearly the complete sense of the Greek term, *katharsis*, or purification of the hero, which Aristotle teaches us to be the purpose of a tragedy. This *katharsis* should be infused into the souls of the audience through the medium of *pity and fear* (*δι' ἔλεος καὶ φόβον*): pity for the hero and fear in the auditor for himself lest he may meet with the same fate. The audience should be led through the same ordeal of purification. Without positive suffering, but merely by witnessing the suffering of the hero, they attain a higher, a purer, and a more ideal conception of life. It is the destruction of the egotistic passions (*καθάρσις τῶν παθημάτων*) and the construction of a lofty philanthropic temple of altruism. The hero no longer lives for himself; he lives for his ideals. His ideals live in him and his life is subservient to his ideals. In listening to a tragedy we are overawed; our souls are full of sentiment which is best expressed in the ecclesiastical term of *edification*.

According to Schopenhauer and his pessimistic adherents, the purpose of a tragedy is to preach pessimism; the hero has to turn his back upon life. In the school of misery he must learn to resign and deny his will. Schopenhauer, Hartmann and Mainländer declare that negation of will is the only aim worthy of religion and philosophy. It is this negation, they declare, that tragedy has to exhibit. But Schopenhauer did not find one instance among the ancient tragedies in which the hero really denies his will. Ajax commits suicide in order to atone for his errors, yet there is nothing of negation of will. Neither is it to be found in *Œdipus*. Hippolytus when dying is consoled by Artemis, who promises, after his death, to bestow upon him the highest honors in Thebes. From these instances Schopenhauer does not conclude that his theory is wrong, as probably Lessing would have done, to whom the ancients were the standard of good taste; he argues that classical tragedy is shallow and inferior to the Christian dramas, which rank higher owing to the fact of their heroes expiring with enthusiasm. Lessing mentions, in his *Dramaturgie*, Christian dramas in which the heroes sometimes rush into death with the confidence of finding a higher and a happier existence in another world. We should not, however, call this a pessimistic negation of life. They love life, but they prefer eternity. It is the



aspiration toward some higher state of existence which allures them to their fate.

Among our standard works of pessimistic art there is not any pessimistic tragedy, except the operas of Wagner, and particularly *Die Götterdämmerung*, in which Wotan terminates the existence of the world, and, tired of life, commits suicide. Wagner, strongly biased by Schopenhauer's philosophy, intentionally created his works in a pessimistic spirit; he is an exception. Dramas by other poets are free from pessimism, as, for instance, *Faust*, *Egmont*, *Marie Stuart*, *Romeo and Juliet*; the minds of the chief characters exalted by their sufferings even to death, are elevated to a higher range. They do not attain a negation of will or annihilation of the ideal to which they aspire. Just the contrary, while Romeo and Juliet die, their love lives and restores peace between the hostile houses of their parents. In a word, our standard tragedies are melioristic and not pessimistic; for, otherwise, in their development, we should miss the solace which alone is able to afford us consolation for the misfortunes of our heroes.

The auditors profit by the experience of the hero. They grow spiritually, intellectually and morally, while he grows through his struggles. While he gains in breadth of mental grasp and in intensity of feeling, the spectators also gain. The purification of our souls, the intellectual and moral gain, in one word, the growth of our minds, is what exerts a beneficial influence and constitutes the pleasure of listening to a tragedy; for all growth is a pleasure: it is the only solid pleasure in life.

Schiller finds "the cause of the pleasures we derive from tragic objects" in "our admiration of moral propriety, which is never more vividly recognized than it is when found in conflict with personal interest and still keeps the upper hand." Schiller says: "We here (in some tragedy) see the triumph of the moral law so sublime an experience for us that we might even hail the calamity which elicits it;" and, further on: "How noble to violate natural interests and prudence in order to be in harmony with the higher moral law. If, then, the sacrifice of life be the way to do this, life must go." Schiller's explanation is profound and grand, but it does not exhaust the subject. The tragedy is more than a conflict between moral propriety and prudence. Such a conflict might happen in a tragedy but need not happen. The tragedy is rather the solution of the problem of life. The question, What do we live for? is answered in a tragedy. We do not live for the pursuit of our happiness only, but for the struggle after and the realization of our ideals.

Thus the law of life and of evolution is disclosed. In growing we must ultimately encounter the catastrophe and endure the hour of trial. It cannot be

evaded by any one who is arriving at maturity. Our mental development starts from optimism, and, passing through the inevitable crisis of pessimism, it reaches the manliness of meliorism, which extends our life beyond the narrow limits of our *ego*.

The problem as to what is the purpose of our existence is solved as soon as we recognize that man is one with humanity and that the evolution of the whole universe is at work in his aspirations. The barrier between the *ego* and the All is broken and man's true self is found in his ideals. We can find no satisfaction in the attainment of our personal welfare merely. We must live and struggle and strive onward, not because we chose to do so, but because Nature thus works out her plans in our souls. We must, because evolution is a cosmical law. We are a part of the All, a part in which the All works and shapes its ends. The All works in us as it works everywhere. Man is the highest stage of evolution on earth, and he, therefore, is the most representative part of the All we know of. Man is the first born son of Nature, and humanity with its holiest ideals is on earth the grandest, the most perfect and most beautiful revelation of the All.

Man's life is a constant struggle for progress, a strife for the ideal and an advance to loftier heights on the infinite path of great possibilities. This idea is the keynote which vibrates through the highest works of art and which thrills through the universe as the law of cosmical evolution.

P. C.

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## CORRESPONDENCE.

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### GOETHE'S THRILL OF AWE.

To the Editor of THE OPEN COURT:—

In reference to the discussion in your issue of June 28th, of Goethe's "Thrill of Awe," it seems plain that the poet refers to that shiver of reverent delight which is experienced when anything new of heroism or sublimity is realized. Lately in conversing on the subject with a number of persons only one of those present but immediately recognized the sensation and could recall instances of experiencing it. One said: "I well remember sitting spell-bound with the shivers running over me when I first heard 'Horatius at the Bridge' read aloud."

This is a sensation perhaps most common to youth and one from which "oft the world may fend us," but whoever has experienced this *Schaudern* has felt that it was the noblest part of his being leaping up to appreciate and reverence exalted deeds and character. It seems to be entirely independent of intellectual discernment or of any action of the will and is rather a spiritual kinship with something external to the person feeling it.

Is not this what Goethe meant? Surely this possibility of being thrilled by the vast, the unknown, the noble, the heroic, is "*der Menschheit bestes Theil*."

CLARA B. COLLY.

BEATRICE, Nebraska.

### THE ANÆSTHETIC REVELATION.

To the Editor of THE OPEN COURT:—

I infer from Mr. M. C. O'Byrne's letter in No. 45, that he has not himself made the experiment with sulphuric ether, and is not



familiar with the recent literature on the subject, to which my previous article gave some references. If this is so, he is discussing the anæsthetic revelation at some disadvantage. The experiment with the anæsthetic is easy and safe for any healthy person, using an ounce or two of the ether, which should preferably be of the purer kind known to physicians as Squibb's ether. It is desirable to omit one meal before taking the anæsthetic.

Is not the attempt to limit the course of psychological investigation by *a priori* considerations, such as those advanced by Mr. O'Byrne, in his letter, a little dangerous? With the awful fate of philosophy in its eyes, psychology may do well to avoid prepossessions, at least it may refuse to accept any dicta from philosophy save such as all philosophers are agreed upon. This stringent though reasonable limitation will throw out absolute idealism.

For the rest, the psychological objection to idealism is evident enough. Idealism and its modern child, phenomenism, assert that all conceivable existence must be of the nature of consciousness, and the arguments adduced appear conclusive. But what is the "nature of consciousness?" That is just what psychology has under investigation. Something is known, much remains to be known about it. The mistake of idealism lies in treating such terms as consciousness, mind, cognition, as *completed concepts* instead of *incomplete concepts*, which they really are. We can only define consciousness as whatever has happened and whatever will happen to mental apprehension. New data come daily. The Society for Psychical Research may any moment come upon phenomena that shall compel psychologists to revise all their preconceived notions.

XENOS CLARK.

#### THE ETHICAL BASIS OF CHARITY.

To the Editor of THE OPEN COURT:—

My Dear Sir: Will you allow me space to reply to one point in Dr. Lindorme's criticism of my article, The Ethical Basis of Charity. It seems to me that Dr. Lindorme's assumption that I confuse "fittest" and "best" is entirely gratuitous. To me the greatest truth of Biology is the absolute indifference of nature to considerations of which we call "best." The greatest danger menacing our civilization arises from the possibility of an inferior race surviving because it can adapt itself to a lower standard of life. Dr. Lindorme in quoting me omits an "if," in which as Touchstone says there is great virtue. I confess it is unscientific to talk about hindering the operation of a law of nature, and to that extent I erred in speaking of the hindrance of the Law of the Survival of the Fittest caused by sentimental almsgiving. But my essay was popular rather than scientific and I used common phraseology. The larger view of course is that sympathy and helpfulness are as much products of nature as is competition, and that charity, however misguided, is part of that Altruism which is an increasingly important factor in Social Evolution. Reasoning by analogy is dangerous and any comparison of a pauper to an animal parasite, which is by no means original but has become common property, is far from perfect. The host of a parasite is an unwilling host and frequently tries to rid itself of its guest. When we feed the pauper on the contrary, we do it voluntarily; the satisfaction of our sympathies being the determining cause. The pauper survives not by Natural Selection, which as I claim would shortly eliminate him, but by Artificial Selection very much like what we use in producing fat cattle or Jacqueminot roses. I did not need to answer the criticism on general principles as I see by your remarks that I am quite safe in the hands of my editor but I do not feel comfortable in resting under an imputation of such "teleological optimism" as Dr. Lindorme accuses me of. I think Dr. Lindorme and I agree very nearly and regret that I did not make my absolute rejection of teleology apparent to so sympathetic and intelligent a critic.

Respectfully,

W. ALEXANDER JOHNSON.

116 La Salle Street, July 20, 1888.

#### CONCORD SCHOOL OF PHILOSOPHY.

MEMORIAL OF A. B. ALCOTT.

BY EDNAH D. CHENEY.

Much regret is felt that the Concord School of Philosophy will not hold its regular session this year, but it is not unfitting that it should pause after nine years work, on the death of its founder, and consider how far it has been possible to carry out his original plan, what has been accomplished during the time it has existed, and what modifications may be desirable in re-opening it at a future time. We shall not attempt to answer these questions fully now, but only say that it has quite justified itself in the interest it has excited in the community, in the stimulus it has given to thought, and in the new combinations of persons separated by early training and influences which it has brought about. It rightly closed this period of its formation by devoting one long lovely summer day to a memorial meeting in honor of its founder, Mr. A. Bronson Alcott. The turf was yet too green above his grave and those who took part in the meeting had too much personal attachment to their friend for a thorough critical analysis of his life and philosophy, yet the whole proceedings were marked by a candid presentation of him in his strong personality without fulsome eulogy or morbid sentimentality. There was no personal gloom, but the fair sweet sunshine of loving memory, in which he stood out in simple dignity and beauty. Mr. Sanborn's biographical sketch gave the genealogical circumstances which made possible this rare union of the yeoman, philosopher and gentleman, and brought out vividly all the early incidents of his life which had moulded his character and mind. We trust this is an earnest of the full biography we may expect from this competent writer. Mr. Bartol with his quick flashing wit, bright as steel and tender as a caress, touched upon his traits of faith and hope and gentleness and the rare union in him of courage and sweetness. The tribute of Rev. G. Reynolds, of Concord, was very interesting. He did not profess to sympathize with the views of Mr. Alcott, but he bore noble testimony to his uprightness of life and high moral virtue, and to his value as a citizen, especially in his service as Superintendent of Schools. The value to the teachers of his presence and sympathy in the schools was especially dwelt upon. Mr. Wm. Garrison, Mr. John Albee, and his old friend Mr. Warston Watson read carefully prepared papers, giving their personal recollections and their estimate of his genius and character. It was reserved for Mr. Wm. L. Harris to discuss "The Philosophy of Mr. Alcott" and it is needless to say that he did so with masterly power. He showed him to have been a genuine Neo-Platonist, but maintained that he did not accept his solution of the Universe from the authority of a Master, but because it was worked out in his own soul. By what books read in youth he was influenced, was an interesting question, but from whatever source the first suggestion of his philosophy came, he made it fruitful and long in his own thought. Not the least interesting part of the exercises was the spontaneous tribute to Mr. Alcott by young men to whom he had been an inspiration and help, and who gratefully remembered how generously he had given to them of his time and sympathy and thought. The day was one long to be remembered, for it was almost perfect without a jarring tone to mar its harmony. It fitly closed Mr. Alcott's "School of Philosophy." How shall it be re-opened?

#### SAYINGS OF THE SEVEN WISE MEN.

Cleobulus—Moderation is best.

Periander—Restrain anger.

Pittacus—Nothing too much.

Solon—Consider the end of life.

Bias—The majority are the worse.

Thales—Avoid being a security.

Chilon—Know thyself.—[Quoted from the Greek Calendar.



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XX.—Continued.

Again did the ripened ears of corn wave gently under the autumn breeze, when Ilse went with her husband to the home of her childhood to visit her father. A year abounding in happiness, but not free from pain, had passed. Her own life also had been a little history in which she had experienced peace and strife, progress and weakness. Her pale cheeks showed that she had encountered suffering, and her thoughtful countenance portrayed the serious thoughts that had passed through her mind; but when she glanced at the weather-beaten church, and fixed her eyes on the dark roof of her father's house, everything was forgotten, and she felt again as a child in the peaceful home which now appeared so refreshing and comforting. The farm-people thronged round the gate; and her sisters rushed to meet her, and her father, towering above all, helped her and her husband out of the carriage. She clasped every one of them in a silent embrace; but when little Franz sprang up to her, she pressed him to her heart, and, losing all her composure, burst into tears, and the father was obliged to take the child from her arms.

They could only pay a short visit, for his professional duties compelled the Professor to return home soon; and though he had proposed to Ilse to remain longer with her father, she declined doing so.

The father looked searchingly at the manner and countenance of his daughter, and made the Professor tell him repeatedly how rapidly and easily she had made herself at home in the city. Meanwhile Ilse flew through the farm-yard and garden out into the fields, again gambolling with her little sisters, who would not let go her hand.

"You are all grown," she exclaimed, "but my curly head most of all—he will be like his father. You will be a country gentleman, Franz."

"No, a Professor," answered the boy.

"Ah, you poor child!" said Ilse.

The laborers left their work and hastened to meet her, and there were many kind greetings and questions: the head carter stopped his horses, and the grey mare tossed her head. "She knows you well," said the man, cracking his whip gaily.

Ilse went into the village, to pay a tribute of respect to the dead and to visit the living. It was with difficulty that she could get away from the invalid Benz, and when at last she did so, he called for his slate, and with trembling hands gave expression to his joy in poetry. She then made a careful inspection of the farm-yard. Accompanied by a train of maids, she walked between the rows of cattle, in spite of her

fashionable dress, like the legendary Frau Berchta, who scattered blessings throughout the stable and house. She stopped before every horned head; the cows raised their mouths to her, lowing; and there was some important news to tell of each. The maids proudly showed her the young calves, and begged her to give names to the grown-up heifers—for the proprietor had desired that these young ones should be named by Ilse—and she gave them the distinguished names of Kalypso and Xantippe. All was familiar, all as formerly, and yet at every step there was something new to eye and ear.

Clara showed her household accounts: the young girl had kept them admirably. The praises which were bestowed upon her by the house-keeper and by the dairy maid, in confidential conversations, gave Ilse great pleasure, and she said: "Now, I am quite satisfied you can do without me here."

Towards evening the Professor sought his wife, who had been absent some hours. He heard the noise of the children by the brook, and guessed where Ilse was. When he turned round the rock by the cave he saw her sitting in the shadow, her eyes turned to her father's house. He called her name, and stretched out his arms towards her; she flew to his bosom, and said, softly: "I know that my home is in your heart; bear with me, when old recollections crowd upon my mind and move me deeply."

At night, when her father conducted the Professor to his bedroom, still conversing with him upon business and politics, Ilse sent her sister Clara to bed, and seated herself in her chair. When her father came in to fetch his candle from the table, he found Ilse again in her old place, waiting to bid him good night, while she handed him the candle stick. He placed it on the table, and, walking up and down the room, as he had done of yore, began, "You are paler and more serious than you used to be. Will that pass?"

"I hope it will," replied his daughter. After a time she continued, "They believe and think very differently in the city from what we do, father."

The father nodded. "That was the reason I was anxious about you."

"And it is impossible for me to free myself from painful thoughts," said Ilse, softly.

"Poor child," said the father, "it passes my powers to help you. For us, in the country, it is easy to believe in a father's care, when one goes across the fields and sees the growth of everything. But let a simple countryman say a word in confidence to you. Moderation and self-renunciation are necessary in all earthly concerns. We are not better in the country and more sensible because we care little for what is mysterious to man. We have no time for subtle inquiries, and if a thought alarms us, our work helps to dispel our doubts.



But thoughts return frequently. I have had days—and have still—when my brains have been on the rack, although I knew that no good would come of it; therefore I now endeavor to keep such thoughts away. This is prudence, but it is not courage. You are placed in a sphere in which bearing and reflecting are unavoidable. You must struggle through it, Ilse. But do not forget two things: on difficult subjects men take very different points of view, and on that account they have, from the most ancient times, hated and slaughtered each other like cannibals, merely because each considered himself in the right. This should be a warning to us. There is only one thing effectual against doubts: to do your duty and concern yourself with what lies in your daily path; for the rest, do not despair because one thinks differently from another. Are you sure of your husband's love?"

"Yes," replied Ilse.

"And have you a thorough respect for his conduct to yourself and others?"

"Yes."

"Then all is well," said the father; "for a tree is known by its fruits. As regards the rest, do not worry about the present or the future. Give me the candle, and go to your husband. Good night, Frau Professor."

#### CHAPTER XXI.

In the large hall of the University a select audience was assembled; state and municipal dignitaries, and men of learning, and students, were constantly streaming backwards and forwards through the doors of the great entrance. The wives of the Professors sat above in the gallery: Ilse was in the place of honor, in the middle of the front row, with Laura. This was a great day for Ilse, for the splendor of the highest academical dignity rested upon her husband's head. Felix Werner had been chosen Rector Magnificus, and was now about to enter upon his office.

The instructors of the University walked in a long procession into the Hall; before them went the beadles in their antique dress of office, carrying great maces in their hands; the gentlemen themselves walked in the order of their several faculties. Theology began the procession, and Philosophy closed it; the latter, both from the number and importance of its members, was the strongest division; altogether they formed a stately company; by the side of some nonentities went men of the highest repute, of whom the country might well be proud; and it was a pleasure to every one to see so much learning assembled. These great minds, however, did not make a very dignified appearance in the procession: they kept their ranks badly; many looked as if they were thinking more of their books than of the impression made by their appearance on the public; one had come behind time—it was

Raschke—he entered carelessly, running behind the tutors and nodding familiarly to his acquaintances. The procession was received by the Academical Choir with a Latin song, solemn, but unintelligible. The Professors ranged themselves on their seats; the ex-Rector mounted the platform, which was decorated with flowers; he first made a learned speech upon the benefits which medical science had long ago derived from the wandering tribes of Arabia, and then read a report of the academical events of the last year. The discourse was fine; the proceedings were imposing; the distinguished guests from the city and government sat immovable; the Professors listened attentively, the students rattled only a little at the door; and if at times from the high ceiling of the great hall the spirit of weariness waved its great bat-wings before the eyes of the audience, as is inevitable at academical ceremonies, Ilse to-day did not remark it. When the Rector had ended his discourse, with a graceful wave of his hand and some complimentary words, he invited his successor to join him on the platform. Felix did so. The Rector took off his cap and the golden chain and mantle, which looked like an old regal mantle, and put them all upon his successor, with warm wishes and expressions of esteem. Laura whispered to her neighbor: "If our Professor had a sword at his side he would look like one of the Electors in the pictures up there." Ilse assented joyfully; it was precisely what she thought. Now Werner came forward with his scarlet mantle and chain. The beadles crossed their maces on both sides of the chair, and the new Rector majestically began an address to the Professors and students, in which he begged for their good will and promised good government. Again the Academical Choir began a Latin song of triumph, and the procession of University instructors retired into the neighboring room, where the Professors surrounded their Rector, shaking hands with him, and the beadles packed the scarlet mantle and chain in a chest, to be preserved for future occasions. Ilse, too, received the congratulations of the ladies, who placed themselves on the gallery steps and greeted her gaily as "Magnifica."

As soon as she got home, Ilse threw her arms round her husband's neck, and told him how stately he looked in his grand attire. "What the gipsy said," she exclaimed, "has been fulfilled to-day: the man whom I love has worn a prince's dress; I greet you, my Prince and Lord."

It was on the afternoon of this great day that the visit of the Hereditary Prince was announced. Ilse once more looked into every corner of her bright dwelling, that she might experience no disgrace as mistress of the house, and made her husband instruct her as to the right form of speaking to an illustrious



rince; "In order that I may know what to say if he addresses me. I am anxious, Felix, for it is a great thing to meet the future Sovereign of one's country."

As the clock struck, the carriage drove up. Gabriel, in his best coat, conducted the gentlemen to the Rector's room. Meanwhile Ilse walked up and down, burning with expectation. It was not long before her door was opened, and two gentlemen entered, introduced by her husband. The Prince was of a slight figure, medium height, black hair, with small face and features; over the delicate lips there was a dark line, which showed the beginning of a mustache; his carriage was awkward and embarrassed, and he gave one the impression of being a delicate and weak man. He seemed confused when he approached Ilse, and he told her, in so low a tone that she could scarcely make out his words, how much he rejoiced in meeting with a countrywoman.

His shy manner gave Ilse courage; she was touched by the countenance of her young Prince, and accosted him: "We in our country cling to our home, and as I now have the opportunity of making your Highness's acquaintance, I venture to say that I remember your Highness. You were quite a young gentleman, and I was only a half-grown girl when I first saw you in your father's capital. Your Highness was sitting on a very small horse; whilst my father and I made our obeisances, the horse stood still and would not go on. You looked kindly at me, just as you do now. I had a couple of roses in my hand, and, as you were our young Prince, I offered them to you. But you shook your head and could not take them, as you had to hold the bridle, and I believe you were a little timid about your horse: but the horse poked its head into the flowers. Then a tall man in uniform rode up and held the horse, and we retreated. You see I remember it all, for it was an important thing for a country girl to remember.—But will your Highness do me the honor to take a seat?"

The Prince's attendant, the Chamberlain von Weidegg, addressed Ilse courteously; he was a man of middle age, tall, of good address, and not bad looking; he took the lead in the conversation, and spoke pleasantly of the hills and woods of their common country; it was an agreeable interchange of words on every day subjects. The Prince was silent, played with his eyeglass, and looked cautiously and wonderingly at the stately wife of the Professor, who was sitting opposite him. At last the Chamberlain inquired at what hour Ilse received strangers, and expressed a wish that the Prince and he might be allowed occasionally to visit her. "On account of the few persons with whom my illustrious Prince can associate in this city, a house in which he may expect not to be treated as a stranger will be particularly acceptable to him." This was very

pleasant and courteous, and when the Professor had accompanied the strangers to the entrance, he said to his wife, "They appear to be very amiable."

"I had imagined my Prince to be quite different, Felix, bold and haughty; but he has not even a star on his breast."

"It must have been in his pocket," said the Professor, consolingly.

In a short time the Hereditary Prince and his Chamberlain found out that this good treatment was very pleasant. The Chamberlain proved himself an agreeable man; he had travelled much, had experience of all sorts, had seen much, and read a good deal on various subjects; he collected autographs, had no vices and no bad habits. During a long sojourn in Rome he had been intimate with old acquaintances of the Professor, he had wandered through the ruins of Pompeii, and showed a warm interest in the details of old Roman houses. Besides this he understood how to listen and how to ask questions, and could, with decorum, tell doubtful anecdotes of people of note. His conversation was agreeable to the Professor, he was welcome at Ilse's tea-table, and liked by her guests. It seemed also to give him pleasure to converse with the learned men; he visited the Doctor and examined his old wood-cuts; he treated Professor Raschke with considerate politeness, and, with his Prince, accompanied the Philosopher on a fine winter evening to his distant dwelling, and during the walk Raschke imparted to them very interesting observations upon plants.

It cannot be said that the Hereditary Prince was much at home among the Professors; he listened with toleration to their conversation, as became an academical student, and said the right thing at the right time; but he showed by an impatient jerk of his lorgnette that he would much have preferred any other kind of entertainment.

Ilse was not pleased when he fidgeted with his glass, for she wished that he should conduct himself with dignity among other men, and she seemed to feel as if the gentlemen would reproach her because the Prince took no real interest in serious subjects. As mistress of the house, therefore, she was very attentive to him; she ventured to advise him not to drink his tea too strong, and prepared it for him herself. The Prince was pleased with this, and enjoyed sitting next to her or watching her perform her duties at the table as hostess. It was only with her that he ever lost his cautious reserve; he talked to her of the remarkable things he had seen in the town, and when he had nothing to say, he assisted her in her duties; he placed the cream jug before her, and always passed the sugar-bowl when he thought that Ilse wanted it.

(To be continued.)



## BOOK REVIEWS.

TWO COLLEGE GIRLS. *Helen Dorset Brown*. Boston: Ticknor & Co.

A reprint, in the popular and acceptable paper series which the above firm is issuing, of a well-written story dealing with the life of two girls of opposite tastes and temperaments, in college. A high theme, sparkling dialogue, and life-like characterization mark this novel and will win for it many appreciative readers. C. P. W.

THE STUDY OF POLITICS. *W. P. Atkinson*. Boston: Roberts Bros.

We have here a printed copy of a lecture forming part of an introduction to a course on Constitutional History, given at the Institute of Technology. It is a spirited appeal to thoughtful citizens for a more earnest and active co-operation in the duties and responsibilities which fall to them as the governing populace of our republic—a timely theme and of growing interest. C. P. W.

HANNAH MORE. Famous Women Series. *Charlotte M. Yonge*. Boston: Roberts Bros.

This is an interesting account of a writer and woman who held an honored position in the ranks of letters during her lifetime, but whose name is slipping from the memory of the present generation. Miss Yonge has given us a very full and interesting account of her subject, and with it much valuable information on kindred themes of constant interest to the literary student. C. P. W.

MODESTE MIGNON. Balzac. Translated by *Katharine Prescott Wormley*. Boston: Roberts Bros.

The day has past for a critical review of an author like that of the *Comédie Humaine*. The enterprising firm which is re-printing the works of Balzac in the present handsome and worthy style, deserves the thanks of all readers of good fiction. Modeste Mignon is full of the author's peculiar characteristics, faithful description of detail, true and lively characterization, noble sentiments and a clear, terse style, often falling into the epigrammatic, so that Balzac, as he is more widely read, is likely to become one of the most quoted of authors. C. P. W.

*Mind* for July contains a number of highly interesting essays, the first of which is an exposition of the "Herbartian Psychology," by G. F. Stout, being the first of a series "intended to draw attention to that movement in the history of Psychology in Germany, which originated with Herbart and Beneke, and to compare it critically with the work of the Associationist School in England." A. F. Shund contributes a paper on "Space and Time," B. Bosanquet on "The Philosophical Importance of a True Theory of Identity," The others are a very suggestive essay on "Reality and Thought," by F. H. Bradley, and on "The Lesson of Neo-Scholasticism," by F. Winterton. The Discussions are upon "The Kantian Conception of Free Will," by Prof. H. Sidgwick, "Impersonal Propositions," by J. Venn, "Hallucination of Memory and 'Telepathy,'" by E. Gurney, and an important paper on "The Psychological Theory of Extension" by the editor, in which he criticises the views of Mr. Ward's article in Vol. XX, of the *Encyclopedia Britannica*, and those of Prof. James in the last volume of *Mind*, in the course of which he condenses a great deal of truth in a small space in the statement that "the mistake of the space-theorists, generally, is to seek for an extension that is extension of nothing at all." The Critical Notices are on H. Taylor's "Morality of Nations," by Prof. W. Wallace, G. S. Morris's "Hegel's Philosophy of the State and of History," by D. G. Ritchie, W. Wundt's "Grundzüge der physiologischen Psychologie," by J. McK. Cabbett, and F. Tonnies' "Gemeinschaft und Gesellschaft," by H. W. Blunt. There is a copious list of notices of New Books, and a very interesting critical note on "Prof. Ladd on Body and Mind," by G. F. Stout, and one on "Aristotle in Jewish Philosophy," etc., etc. F. S.

## NOTES.

A paper by Mrs. Ednah D. Cheney, entitled "Reminiscences of Mr. Alcott's Conversations," will appear in the next issue of the OPEN COURT.

Félix Alcan of Paris is issuing a French translation by M. Burdeau, of Schopenhauer's main work: *Die Welt als Wille und Vorstellung*. The publication when complete will comprise three volumes. The first volume is now ready, and is a reproduction of the original work as published in Leipzig, in 1819. The second and third volumes, to appear towards the end of the year, will include all additions and amplifications afterwards made by Schopenhauer upon the original theme. The translation will be without omissions or abridgements of any kind. The excellencies of *Le Monde comme Volonté et comme Représentation* need no further recommendation than the fact of its appearing in the *Bibliothèque de Philosophie contemporaine*.

In No. 49, the issue of Aug. 2, the OPEN COURT will begin a series of essays by A. Binet, the celebrated French Psychologist, upon the Psychic Life of Micro-Organisms. The essays are a translation of two articles that appeared in the *Revue Philosophique* of November and December, 1887. Monsieur Binet presents in an attractive and lucid manner the results of the latest investigations into the psychical life of animalculæ. Heretofore, the results existed only in scattered reports, and were practically inaccessible. They are now presented for the first time in a carefully collated form. The eminence that M. Binet has attained in the province of physiological psychology in connection with his distinguished collaborators, Th. Ribot and Ch. Féré, is sufficient recommendation of the worth of these contributions. The OPEN COURT has secured from Félix Alcan, publisher of the *Revue Philosophique*, the cuts and plates that accompanied the articles when originally published.

We wish to call our readers' attention to a young ladies' school which distinguishes itself from its numerous sister institutions in several important respects. We mean the Minerva Institute, formerly in Chicago, but recently removed to Ravenswood, Illinois, a charming suburb, near enough to the city to ensure the enjoyment of all metropolitan advantages while offering to its pupils many attractions that the country alone affords. Mme. von Ende, the principal of the establishment, is a lady of unusual attainments, not only conversant with every topic of science, literature and art, but deeply interested in educational and moral reform. She is therefore not merely concerned with increasing the personal accomplishments of her charges, but endeavors to make them better and more useful women. The school is based on an entirely secular basis, the catalogue stating that "unlimited toleration in religious questions is one of the leading principles" and that sectarian influence is therefore excluded; but ethical culture, which is adaptable to all creeds, takes the place of religious exercises, and the poetic and emotional side of man's nature receives the nourishment it craves for in the reading of and conversing on the works of great poets and thinkers. Inspired by the ideas of the "new education," which commands respect for individuality instead of crushing it by mechanical routine work, and which demands manual training as well as mental, the school gives its pupils not only an education which fits them to enter college or adopt the profession of teaching, as several of the graduates have done, but it prepares young girls to fill honorably their place, whether it be in the narrow limits of a quiet home, or that world of its own, society. As thoroughness is the end and conscientiousness the means to that end, in all that the principal and the faculty of that school undertake, it is hoped that their earnest work will be rewarded by success.



## CONTENTS OF FORMER NUMBERS OF "THE OPEN COURT."

### WHAT MIND IS.

Prof. E. D. COPE.....In No. 40.  
THE NATURE OF MIND.

By the Editor of THE OPEN COURT. No. 40  
Professor Cope gives in clear and comprehensive outlines his view of mind; he opposes Materialism and Dualism, stating that "the situation is monistic." However, "as the amount of thought can most assuredly be measured, but the quality of thought can not," the eminent American scientist concludes that "consciousness has a field of its own where it ranges free from the bonds of energy." The directive element (will and mind) is qualitative not quantitative and controls the movements of the non-mental environment. "This statement may be called occultism," Prof. Cope adds, "and I suppose justly. But such is the fact."

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## SHELLS, MINERALS & FOSSILS

—Also—

### SEEDS and PLANTS.

C. R. ORCUTT, Publisher,  
The West American Scientist,  
SAN DIEGO, CALIFORNIA.

In opposition to Prof. Cope, the Editor explains his view of mind. The qualitative faculties are a matter of form. Form is the essential characteristic of mind, and a superior mind indicates a superior form of brain structure. Form is an abstraction from reality and has by itself no efficacy. M. Ribot, the founder of the French school of experimental psychology, is quoted in support of the fact that consciousness by itself is not an effective factor in the motion of our limbs. "The consciousness of mental states may be indispensable for a proper direction of our will, but it does not possess motive power. Prof. Cope's view is considered inconsistent because leading to dualistic statements and to occultism.

A letter from Prof. E. D. Cope, which has reference to this discussion, is published in No. 42.

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No. 49. Vol. II.—23.

CHICAGO, AUGUST 2, 1888.

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## AGNOSTICISM.

By MONCURE D. CONWAY.....In No. 47.

Mr. Moncure D. Conway, in reference to the philosophical exposure of Agnosticism in the editorial article of Nos. 43 and 44 of THE OPEN COURT, declares that the Unknowable cannot in the least concern the religious nature. Only weariness of wing can have brought free thinkers to seek rest on this raft. Religion does not follow abstract and vague gods, it follows Jesus, Buddha, Mary, who may be known and loved. On the truth and moral value of these great figures, man can base his life. Mr. Conway concludes with the remark that the ethical side of monism has not as yet been made clear. Nature seems predatory and cruelly impartial between good and evil. Adherents of error survive more comfortably and increase more extensively than the disciples of truth. May it not be more truly said that there is a moral law in man to which nature must conform in order to be elevated and transfigured to a nobler existence? Mr. Conway's critical remark if it were unanswerable from the standpoint of Monism would drive religion and philosophy back into the dualism and supernaturalism of former times. And truly the supernatural, if it is justifiable at

all, must be recognized in the moral nature of man, unless man is proven to be a part of nature. The editor's answer to Mr. Conway's criticism, in the same number, expatiates on the Oneness of Man and Nature, thus showing that humanity, culture and civilization are but a higher stage of the natural, and that morality does not stand in contradiction to, but is an observing of and a conforming to the cosmical order of the All.

ERNST MACH.

Ernst Mach (Professor of Mechanics at the University of Prague, author of several works explanatory of the history and philosophy of mechanics, and the first authority in his branch) explains in his essay *Transformation and Adaptation in Scientific Thought*, (in Nos. 46 and 48), one of the most characteristic ideas of modern science—an idea that lies, so to speak, in the atmosphere. "Knowledge," he says, "is an expression of organic nature." The law of evolution, which is that of transformation and adaptation, applies to thoughts just as well as to individuals or any living organisms. A conflict between our customary train of thought and new events produces what is called the problem. By a subsequent adaptation of our thought to the enlarged field of observation the problem disappears and through this extension of our sphere of experience the growth of thought is possible. Thus the happiest ideas do not fall from heaven, they spring rather from notions already existing. From this standpoint the narrow conception of egotistic views disappears. "The person" is comparable to an indifferent and symbolical thread on which are strung the real pearls of life—the ideas that make up the changing content of consciousness. Humanity in its entirety is like a polyp plant; the material and organic bonds of union have been severed, but by this freedom of movement, the psychological connection of the whole has been attained in a much higher degree.

FR. HELBIG.

In Nos. 22, 23 and 24 is a deeply philosophical essay, "The Fool in the Drama," by Franz Helbig, another German scholar whose works refer to the History of Civilization. In this essay are shown in a delightful way the wisdom and the folly of the fool in the drama, and his value, not only to the body politic, but to the morals of human life. In the folly of the fool in the drama we see our own folly; and the satire of the fool administered in jest leaves a lesson behind it that makes us think seriously when the laughter is done.

E. P. POWELL.

The American scholar, E. P. Powell, gives his views on "Language" in Nos. 24 and 26. He maintains that language, as a means of communication, is possessed by all the animal creation, even down to the lowest in the scale of being; that all communicate with one another; that all of them have a language to express their wants and especially to express hunger. This lies at the root of the principle of evolution, because "organic development is necessitated in the direction of organic power to express—to speak."

The reader should compare the views of Mr. Powell with Max Müller's essay on the subject of language, published in *THE OPEN COURT*, Nos. 9-11 and 12-14, and lately republished. Max Müller defines thought as "addition and subtraction." What we add and subtract is thought, which consists of (1) sensations, (2) percepts, (3) concepts and (4) names. These four he claims to be inseparably united. E. P. Powell's definition of language is more comprehensive, including the communicativeness of the lower animals. His view is different from Max Müller's, but by no means contrary.

For further information on the subject of language the reader is referred to the editorial Monism and Philology, and Ludwig Noiré's important essay "The Origin of Reason," both published in No. 33.



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## THE PSYCHIC LIFE OF MICRO-ORGANISMS.\*

BY A. EINET.

Translated from the French by άρρκ.

PART I.

The study of microscopic organisms has hitherto been somewhat neglected by students of comparative psychology. Naturalists who have devoted their attention to the study of these beings, have collected a great number of interesting facts concerning their psychic life; but these facts have not yet been critically examined and collated; they are scattered in reports and publications of all kinds, where the psychologist never dreams of looking for them. We shall endeavor to make him acquainted with a part of this wealth.

Under the name micro-organism are included all those beings which by reason of their extreme smallness and simplicity of structure represent the lowest stages of animal or vegetable life; they constitute the very simplest forms of living matter, and consist of one single cell.†

Some inhabit fresh and salt waters, serving as food for a great many other organisms, or contributing by the aid of their calcareous or silicious skeletons to the formation of continents. Others live as parasites in the organs of animals and plants, and induce more or less serious disorders in the constitutions of the organisms they have penetrated. Others, again, acting like ferments, produce important chemical modifications in organic matter in the course of decomposition.

A great number of classifications for the methodical arrangement of these beings has been proposed; but not one of them is altogether satisfactory; and that stands to reason. If a natural classification is always a complex piece of work in the case of the higher animals which differ from each other in important features and between which a comparison can be instituted, the difficulty attending the classification of simple organisms which present only the slightest differentiations is still more difficult.

The principal division made is that which divides them into animal Micro-organisms or Protozoans and vegetable Micro-organisms or Microphytes.

The line of demarcation between these two kingdoms is far from being well defined; there are a great

number of micro-organisms *incertæ sedis*, which botanists usually place in the vegetable kingdom, but which zoölogists prefer to classify as belonging to the animal kingdom.\*

We give below a list of the most important groups of animal micro-organisms.

### ANIMAL MICRO-ORGANISMS.

INFUSORIA.	MASTIGOPHORES.	SARCODINES.	SPOROZOA.
Ciliates.	Flagellates.	Rhizopods.	Gregarinids.
Suctorina (Suckers)	Chaetognathellates.	Helliozoa.	Coccidia.
.....	Dinoflagellates.	Radiolarians.	Sarcosporidia.
.....	Cystoflagellates.	.....	Mycosporidia.
.....	.....	.....	Microsporidia.

We propose, now, to study the psychic life of these lower organisms, or, to speak in more general terms, their life of Relation. It is well known that the expression, the life of relation, comprehends essentially two distinct ideas: first, the action of the external world felt by the organism: or sensibility; secondly, the reaction of the organism on the external world: or movement. It is customary to apply to the union of these two properties the name irritability, which expresses the reaction of the micro-organism upon exterior forces. It is therefore held, and with reason, that every living cell is irritable, that is to say that it possesses the property of responding by movements to the excitations which it suffers.

In admitting then that irritability is the foundation of the life of Relation, and consequently also the foundation of psychology, we must nevertheless guard against comparing the autonomous cell of micro-organisms to a simple irritable cell. Although the body of these small beings may be equivalent to a simple cell, it would be an error to believe that their life of relation consists in a motory reaction consequent upon exterior irritation. At the close of our investigations into the psychology of Proto-organisms we shall see that, in these inferior beings which represent the simplest forms of life, we find manifestations of an intelligence which greatly transcends the phenomena of cellular irritability. Thus, even on the very lowest rounds of the ladder of life, psychic manifestations are very much more complex than is usually believed, and the conception of cellular psychology which some very

\* Translation copyrighted.

† The doctrine of unicellularity in regard to the Infusoria has been upheld by Sibold and Kölliker; the majority of naturalists have conceded it.

\* The best mark to distinguish the two kingdoms is the chemical nature of the enveloping membrane: in the case of vegetable organisms, the enveloping membrane is made up of a ternary substance, cellulose; while in animal organisms it is albuminoid in character.



recent authors have formed, seems to me a very crude analysis of the most delicate of phenomena.

In the great majority of pluricellular animals, the life of Relation is exhibited in a nervous system and in a muscular system. In Micro-organisms the same cannot be said to be the case: the greater part possess neither a central nervous system nor organs of sense; some even lack organs of locomotion. The functions of the life of Relation are performed by the entire mass of the body: many of the Protista, for example, have not a trace of an anatomically differentiated visual organ; it is the entire protoplasm of the elementary organism that is excitable by light, as it is also by heat or by electricity. In other Micro-organisms somewhat higher in the scale, a beginning of differentiation may be seen to make its appearance, giving birth either to some organ of sense or to some organ of locomotion.

We shall give a general description of these organs. The study of this first move in the work of differentiation is of great interest to comparative anatomy and physiology; no less interesting is it to psychology. Besides dwelling on these preliminaries of our work, we shall have occasion to note new and interesting facts.

# I.

## THE MOTORY ORGANS AND THE ORGANS OF SENSE.

*Motility.* From the schedule of the groups of animal micro-organisms which we have given, it will be seen that they are subdivided into four classes, the Infusoria, the Mastigophores, the Sarcodines and the Sporozoa. The distinction between these classes depends on the existence and the nature of the motor organs.

The Infusoria comprise the protozoa that move by the aid of vibratile cilia distributed in greater or less number over their body.

The second class, the Mastigophores, comprises those animals which move by the aid of flagella, that is to say by the help of long filaments.

The third class, the Sarcodines, comprises those animals which move by the aid of pseudopodia; which are projections of the substance of their bodies.

The fourth class, the Sporozoa, is characterized by the mode of multiplication: they are reproduced by spores. In the animals of this group, the special motor organs are wanting; these creatures therefore generally move very little, or they present only movements of which the principles are unknown.

We shall successively describe the pseudopodia, the vibratile cilia and the flagellum.

*The Pseudopod.* The formation of pseudopodia takes place chiefly in naked cells—in cells lacking an enveloping membrane, in the Sarcodines in general. They can easily be studied in the *Amœba princeps*, a

microscopic animal which is found in abundance in fresh water containing organic matter in a state of putrefaction. It has the aspect of a small gelatinous mass, irregular, formed of a colorless substance, the protoplasm. The chemical nature of protoplasm is still very imperfectly understood; it is only known that it is the result of a mixture of albuminoid matters, with an addition of water and mineral elements. In the protoplasm of the *amœba* exists a small rounded and refracting mass, containing one or two bright corpuscles in its interior; this small mass is called the nucleus, and the corpuscles the nucleoli.

The form of the body of the *amœba* is rendered very irregular by the fact that certain parts of the mass lengthen, and form short and rounded protuberances which are designated by the name of pseudopodia. It is by means of these pseudopodia that the animal moves; it emits them in the direction in which it is going, then it retracts them, while other parts of the mass are in their turn elongated. The whole body moves by creeping. The *amœba* in moving has the aspect of a drop of oil moving along. To explain the mechanism of this movement, it must be supposed that the extended pseudopod seizes some point of support with its free end, then, in contracting, draws the entire mass of the body up to this. But it is difficult to understand what the cause of the elongation of the pseudopodia is. It has been supposed that the protoplasm is endowed with great elasticity and that the elongation is the return of this substance to its primitive form. That is not the explanation given by M. Rouget. The learned professor of the Museum has been kind enough to write out the following note for us, in which he recapitulates his opinion:

"Every time that a protoplasmic organism dies, or is subjected either to a strong electric excitation, or to a relatively high temperature ( $+45^{\circ}$  to  $+50^{\circ}$ ) the pseudopodia are retracted and re-enter into the mass, which assumes a globular form; the same is the case in the protoplasm of vegetable cells, the inter-cellular reticulum of which breaks in receding, or else the mass of protoplasm divides into spherical bodies. These states of retraction are the analogues of *muscular rigidity*, and like it represent the condition of *maximum* contraction in the protoplasm—nevertheless the style of the Vorticelles (*Carchesium*) which is a protoplasmic formation, under the same conditions, remains in a state of permanent retraction. It follows from this that the emission of the pseudopodia, *their elongation*, cannot in any case be considered as a direct act of the contractility of the protoplasm.

"The production of the pseudopodia, one of the most difficult problems, cannot, in my opinion, be explained, except in the following manner: All protoplasmic masses, and especially the *amœba*, consist of



two parts, an enveloping membrane or ectosarc, viscous and elastic, and the central liquid contents holding granules in suspension.

"From the time of the apparition of a pseudopod, a current of liquid is visible which penetrates into the pseudopod and which seems to contribute to its elongation. It is very evident that the liquid is passive, that it penetrates into the pseudopod only because, pressed upon from all sides, it finds less resistance there. I think that the (in appearance) homogeneous hyaline substance of the pseudopod is also a species of *hernia* of the ectosarc, resulting from a diminution of the elastic resistance at the point where it appears, with an increase of elasticity or of contractility (to me two modalities of the same property) in those parts of the ectosarc where pseudopodia are not produced. When the contractility or the elastic tension of these parts diminishes, and returns to its original state the pseudopod re-enters into the mass. Add to this that, in an amœba of large dimensions, *Amœba terricola*, it has seemed to me that the most external membrane of the ectosarc showed stria of a granular appearance which may be identical with the stria or contractile fibrils of the ectosarc of the ciliated infusoria, *Stentor Spirostomes*, *Bursaria*, etc." (May 20, 1887.)

The pseudopod does not represent a permanent, differentiated organ of locomotion; it is produced by a simple prolongation of the mass of the body, which can take place at any point whatever, and when the act of locomotion has been accomplished, this prolongation re-enters into the common mass without leaving any traces of its emission. In other animal species, for example the *Petalobus* of Lachmann, initial traces of differentiation of the pseudopodia have been observed; they always form at the same point of the body, on a level with the anterior part; but, in spite of this constant localization, the motor organ has only a transitory existence; it is produced at the moment it is needed, and disappears into the mass of the body, when the movement has been executed. In the *Actinophrys* there is a still greater progress: the numerous pseudopodia emitted by this animal, and which have the form of filaments, are permanent organs with definite functions.

*The Vibratile Cilia.* The vibratile cilia are short, extremely thin, homogeneous filaments which are agitated by a vibratory movement. These are distinctly differentiated organs of locomotion. They have, moreover, several functions: firstly, they enable the animal to move about in the liquid; secondly, they serve it as an organ of prehension; thirdly, they permit a renewal of the water which furnishes the necessary air for respiration to the animal; perhaps they also serve as organs of touch.

The vibratile cilia lend to the Infusoria their peculiar

character and enable them to be distinguished from all the other Protozoa. Cilia are also found in vegetable species when young, and in the larvæ of Coelenterates, of mollusks and of worms. But among the Protozoa, it is the Infusoria alone that are ciliated. The cilia are distributed in various manners, differing according to the species. In the *holotricha*, they are distributed regularly over the whole surface of the body, and almost all have the same length; in the *Heterotricha*, they also cover the whole surface of the body, but they are unequal in length. To this group belong the *Stentors* which have long cilia inserted around a circular surface, extending almost to the mouth. This surface is a rotatory organ, analogous to that of the rotifers; it produces eddies in the water and thus causes the flow of foreign bodies to the mouth: these animals have the rest of their bodies covered with fine cilia. In the *Hypotricha* the cilia are located on the ventral surface of the body and aid in locomotion. In the *Peritricha*, they form a circular or spiral row on the anterior part of the body, and lead to the mouth. This is observed in the *Vorticels*, sessile species which have no other cilia than those which are used for the prehension of food; the rest of the body is bare.

Much has been said about the morphological significance of vibratile cilia; several micrographists have held that the cilia are attached to the enveloping membrane only, and have no connection whatever with the protoplasm. That was notably the opinion of Robin; it is entirely wrong. The cilia are never simple prolongations of the cuticle; they have their root in the protoplasmic substance; they pass through orifices in the cuticle, which consequently is pierced by a multitude of small holes. Engelmann, in recent observations, has been able to trace the extremity of the vibratile cilia into the interior of the protoplasm; he made this observation on the marginal cilia of the *Stylonichia*; from each of these threads he has seen separate a pale fibre, which moves along almost directly beneath the cuticle in a direction perpendicular to the lateral edge of the body; towards the median line of the ventral face the fibres are often laid bare, because the body of this Infusory voids its protoplasmic substance; there the fibres have the aspect of tightened threads. Engelmann sees in this observation a confirmation of the opinion that the bodies of infusoria are formed of one single cell, because, according to other observers, there exist also in vibratile cellulæ filiform stria which seems to be a continuation of the cilia, and which traverse the protoplasm of the cell throughout its whole length.

We might add to this direct observation several other facts showing that the vibratile cilia are indeed prolongations of the plasm. Under the action of



re-agents the cilia act like the cellular protoplasm; they are coagulated by the acids and dissolved by weak alkalies, while the cuticle offers a greater resistance to these same agents.

These vibratile appendices are not without analogy with the pseudopodia of naked cells; Dujardin, a French naturalist, demonstrated this in 1835, although efforts have since been made to bestow the honor of this discovery upon the Germans. Dujardin has proved that the amoeboid movement and the ciliary movement are only two manifestations of the contractile power of protoplasm. In fact, if instead of examining a pseudopod with lobed outline like that of the amoeba, we observe the slender and filamentous pseudopodia of the Foramenifera, we see that the extremity of the filament is agitated by the same vibratory movement as the vibratile cilium.

All the transitions from the fine and delicate cilia to the large cilia, tapering in form like a stiletto, which have been called cirri, have been observed; moreover these cirri are formed of agglutinated cilia; by the aid of certain re-agents they have been dissociated.

An observation of a ciliated infusory, the *Didinium nasutum* (see the illustration further on) made by M. Balbiani, shows that the movement of the cirri is not an involuntary movement like that of the cilia of the vibratile epithelium, with which it has often been compared, but that it is completely under the control of the will of the animal, like the organs of locomotion of animals much higher in point of organization.

"The *Didinium* has two rows of equal, and rather strong, vibratile cilia, disposed transversely around the body, in the form of two belts or crowns. The rest of the body of this animal is entirely stripped of cilia, but its double vibratory belt suffices to enable it to execute the most rapid and most varied evolutions in the water. Not only does it swim forwards and backwards with perfect ease, but the progression in both directions is always accompanied by a rapid rotatory movement of the animal about its longitudinal axis, similar to that observed in other infusoria that have a cylindrical body. The two rows of cilia always act in union during the locomotion, and the direction which the animal gives to them, determines the direction in which it wishes to move. In the movement for-

wards, all the cilia are directed toward the anterior part of the body (fig. 1); when it swims backwards, they are reversed (fig. 2). The infusory thus rapidly makes its way across the field of vision by jerks; from time to time it suddenly stops, all the time continuing to turn around rapidly on its axis on the one spot, during which movement the ciliated belts beat the water in opposite directions, the anterior ones being turned forwards, while the posterior are turned backwards (fig. 3). The result of this is that the effects of these small locomotive apparatuses neutralize each other in the same manner as two helices acting in opposite directions, and that the animal remains stationary, while all the time turning rapidly about itself, sometimes horizontally, sometimes vertically on its conical appendage, just as on a pivot."

Certain Infusoria, for example the *Condyllostoma patens*, which has been thoroughly studied by M. Maupas, possess at the same time the two kinds of appendages, the cilia and the cirri. The former, which cover the dorsal surface of the animal, are fine, very dense and animated by a rapid and unceasing vibratile movement. The cirri, which cover the ventral surface are placed apart; furthermore they do not vibrate rapidly; their movements are slow, and when the infusory moves, one can see them move successively on the plate of glass and support themselves there, in the manner of a foot, to make the body advance. When the animal stands still, the cirri are absolutely immobile, while the cilia continue their vibratile movement. This observation which can equally well be made of the Oxytrichid, shows that the vibratile cilia are the organs of involuntary movement, and that the cirri are more directly subject to the will. The fact is demonstrated by the experiments of Rossbach, who observed that, under the influence of the falling of the temperature (from  $+15$  to  $+4$ ) or of the rising of the temperature (from  $+35$  to  $+40$ ) or under the influence of various chemical substances, the large cilia, the organs of voluntary movement are paralysed, while the fine and delicate cilia continue their movements, which do not seem to be under the influence of the will. These movements alone cause the whole body to rotate until the vibratile cilia are in their turn paralyzed.

Besides the cilia and the cirri, other appendages in the form of membranes are found among the Infusoria, appendages which are attached to the anterior part of the body or the peristome; these membranes serve the purpose of causing eddies in the water, which bring the floating alimentary particles into the mouth. They are modifications of the vibratile cilia; these membranes like the cirri are formed of agglutinated cilia.

(To be continued.)



Fig. 1.—*Didinium nasutum* (Balbiani). Figure representing movement forward. The cilia are all turned towards the front part of the body.



Fig. 2.—*Didinium nasutum* (Balbiani). Outline of movement backwards. The cilia are all turned towards the back part of the body.



Fig. 3.—*Didinium nasutum* (Balbiani). A sketch of rotatory movement in one spot. The cilia of the anterior belt are directed forwards, while those of the posterior belt are directed backwards.



## REMINISCENCES OF MR. ALCOTT'S CONVERSATIONS.

BY MRS. EDNAH D. CHENEY.

PART I.

*Gentlemen and Ladies.*\*—It is a difficult task to give any idea of Mr. Alcott's conversations to those who never had the happiness of listening to him, for he was unlike every other in the charm and fascination of his speech. He delighted in conversation, and celebrated it ever as the highest form of human expression. Lowell, in the "Fable for Critics," has hardly caricatured him in saying:

"For his highest conceit of a happiest state is  
Where they'd live upon acorns, and hear him talk gratis.  
And indeed, I believe, no man ever talked better;  
Each sentence hangs perfectly poised to a letter;  
He seems piling words, but there's royal dust hid  
In the heart of each sky-piercing pyramid."

This comparison to a pyramid is striking, because most people think of Mr. Alcott's speech as more like a free balloon, with no attachment to earth—but I find in an old letter this remark of a critic: "The company that night formed a pyramid, whose base was deep in earth, but whose summit bathed itself in the clouds."

Little justice has been done to the keen sagacity, the fine perception of character, the wit, the satire, even, I may say, audacity of Mr. Alcott's speech, which made his conversation not only elevating, but exhilarating, for these traits were always in subordination to the prevailing quality of high spirituality which left the deepest impression upon you. I find such expressions as these written at the time of hearing him:

"That atmosphere of thought was like sea air to an invalid."

"Mr. Alcott's conversation was a great deal to me, it led me into the Universal, out of myself. It had the same effect that Genius always does." "He was more genial, more humane than I expected." Again, "There is a sort of charm in his voice which, like the music of a song, diverts the attention from the words." And, "I feel like a child with him, and am quite sure that he will accept all with gentleness and forbearance."

At times he was a pure rhapsodist and carried you along by the music of his thought and speech, which it was impossible to define. Theodore Parker said: "Sometimes Mr. Alcott talks like an angel."

I think he never prepared himself by writing, or made notes of what he wished to say or even to quote, although he sometimes opened the conversation by reading, but he sought to bring his mind into the right condition for fruitful meditations. He was wont to read his favorite authors, the philosophers Pythagoras, Plato, Plotinus, etc., or his quaint old poets, Quarles or Donne, Spencer or Herbert, and then as the day began to decline he took his walk around the Common, letting the bracing air and the glow of the sunset tune his mind to harmony, and fill him with inspiration.

\* Read at the Memorial Meeting of the Concord School of Philosophy, Summer of 1888.

He never cared to have any one speak to him before the meeting opened.

Yet in the strict sense of the word, Mr. Alcott was not a master of conversation, for his speech was mainly a monologue, and he was not greatly helped by contact with other minds, even by the rich company which he drew about him. He needed a listener rather than an interlocutor. He once said to me: "I wish I had some one with infinite leisure and unbounded patience to listen to my journals," and he liked the same for his speech. He wanted to hear the echo of his own thought from another mind, but he liked as well that it should be reflected back to him unchanged, as to have it remoulded by another's personality. He was little helped by opposition or criticism—it seldom struck out sparks to hammer upon him, but rather he was deafened and deadened by the concussion. He did not seek debate, but communion. He never came to a close grip with an antagonist, he always had a protecting space about him, an air cushion which neutralized the effect of the blows. Yet there was nothing overbearing in his manner, this very buoyant atmosphere made every one feel freedom as if he were floating and held by no barriers, except the impossibilities of arriving anywhere for want of assistance.

He often repeated his thought, even in precisely the same form and words, and yet it always had a certain freshness of originality, and those who really entered into his mind found him always suggestive and fresh. He said: "No book is worth reading that is not as fresh the thousandth time as the first," and his statements were so full of meaning, that after many hearings you often found yourself puzzling over them with new interest in the explanation. I was delighted to find young people of the second generation feeling the same charm in his conversation that we had done, when we sat as young girls at his feet.

Yet it was inevitable that he should sometimes find himself unable to sustain his angelic flights, and should mount a hobby which he rode over the level ground. The repetition of talk on his favorite themes of Temperament, Complexion, Diet, became wearisome to his hearers, especially to those who only perceived the outward features of the subject, and by no means recognized the wide relations which they held in Mr. Alcott's mind. There was always in the company some one to whom his treatment of these topics was new, and who, taking them in their most literal sense, combated his views with superficial arguments, so that the weariness of the discussion was due more to his opponents than to himself. The meat-eater was unwilling to be classed with beasts of prey, and the dark-haired man did not understand being called a demon, and the round of explanation had to be gone through with again and again. He was too much in earnest in



his thought to turn away from the discussion of these deep topics, which were full of deep meaning to him.

My own first recollection of Mr. Alcott is of one conversation heard in his house in Beach street, which must have been between the years 1838 and 1840. I was a mere school-girl and went with an older friend who admired and valued him. I was entirely befogged and gained nothing from the conversation but a certain personal impression of dignity and power, which inclined me to hear him again when the right time came. I remember that walking home with my father, I remarked that I could not understand his denying the miracles, which seemed to me a perfectly reasonable exercise of power by a personal God.

I did not hear him again for about ten years, when I began to attend his conversations and to make abstracts of them. In opening, he said: "We must devote the first evening principally to forming acquaintance. We must grope and blunder, and in some moment the inspiring light will come to some mind, and perhaps four or five happy episodes will be all we shall get from the conversation." In the course of these remarks Mr. Alcott said: "Words, if rigidly adhered to, become tombs of thought"; whereupon some one suggested that then "dictionaries are grave-yards!" Mr. Alcott said, he hoped we should go struggling on, we might possibly get into so deep waters of thought that we should drown therein, but he hoped not, "at any rate he had rather drown in a sea of ideas than of words."

By way of commencement he read Plato's Parable of Man, as a figure with a hundred heads of bird and beast, which represented the desires; then the figure of a Lion which was Anger; and then the figure of a Man; and he who loves justice gives the rule to this man over the beasts.

This was discussed by Miss Elizabeth Peabody, Mr. Parker, and by Mr. Scherb, a very brilliant German lecturer, then in Boston.

He then gave some phrases as: instincts, which desire; understanding, which apprehends; fancy, which images; reason, which comprehends; imagination, which seizes truths; conscience, which perceives laws, inspiration or intuition.

Mr. Parker asked him to define Understanding and Reason. He declined, saying: "God only can define, Man can only confine!" Well, will you confine them then? said Mr. Parker.

When the conversation turned to language, Mr. Alcott said: "All language is fluent, a word means what we will have it to mean at the time, it needs the whole experience of life to explain it, and no definitions can make it convey the thought to one not in a condition to receive it."

"He followed this theory and often put his own

meaning into words which made him liable to misunderstanding from others. "Taken in a certain fine sense," was a favorite expression of his used of old words which were to express new ideas.

While Theodore Parker admired Mr. Alcott and recognized his peculiar value, he was not helpful to him in the conversation on account of their very different intellectual methods. Yet Mr. Parker would sum up the whole talk of the evening in a masterly manner, showing how each person had brought out some necessary phase of the question, and presenting such a curious contrast between his definite statement, and the floating mist which had appeared before, as moved us all to laughter. He did so this evening, closing by accepting Mr. Alcott's definition of the object of man's culture "being to free him from institutions," and asking, "what methods would help to this end?"

Instead of answering this question, Mr. Alcott spoke of conversation and said: "I wish you constantly to draw me from the centre to the surface, into the region where men buy and sell. Here sits a man whose blessing or curse it is, that he dwells in the region of the Ideal, he cannot come down to the region of the Understanding, he has no common sense. Will you not take his case kindly into consideration?"

Among those present was Wm. Henry Channing, who usually helped Mr. Alcott more than any one, unless it were John W. Brown, who always comprehended and sympathized with him. But when Mr. Alcott once appealed to him to know if he used words vaguely, Mr. Brown frankly replied: "You do, and I should not understand you if I did not already know your theories." Mr. J. F. Clark was also present at the conversations.

Among the company was a German of much learning, but skeptical and excessively critical who once apologized to Mr. Alcott for having perhaps said too much and hurt the conversation. "Oh!" said Mr. Alcott, very coolly, "do not be troubled, I don't know upon the whole, but you have helped as much as you have hindered."

But the subject which never failed to puzzle his audience and to draw out much questioning and philistinism was his favorite theory of the Temperaments and Complexions and their illustration in the Angelic and Demonic Man. It was not pleasant to those who had inherited the brunette complexion and dark hair of Southern ancestors, to hear this fair, blue-eyed, light-haired man calmly class them as demons, which word they took, not in its Socratic sense, but as our own German ancestors used it.

A dark-eyed lady once said to him after such a conversation, "I believe your theory, Mr. Alcott, but I don't like to think I belong to the Demons." "Oh!



Mrs.—"I" he replied, "there are many shades darker than you, there is the Negro."

When he was thus discoursing, once, as I felt a sensitiveness for my friends, the Negroes, I said, "Swedenborg says, 'the Negroes are the most beloved of all the races in Heaven.'" "That is very kind in Mr. Swedenborg," was the answer which stopped all comment.

But the most remarkable passage of arms that I remember was with the late Col. Greene. Col. Greene was a master of the art of logic and almost rivaled Socrates in his skill in winding an adversary up into a complete snarl. Of course, he was quite antipathetic to Mr. Alcott. On one occasion, Mr. Alcott described the demonic man and it was point for point a portrait of Mr. Greene, then Reverend and not Colonel, who sat directly before him. "The demonic man is strong, he has dark hair and eyes, his eye is full of fire, he has great energy, strong will. He is logical, and loves disputation and argument. The demonic man smokes, etc." The company silently made the application, but Mr. Greene said, "But has not the demonic man his value?" "Oh, yes!" said Mr. Alcott, "the demonic man is good in his place, very good, he is good to build railroads, but I do not quite like to see him in pulpits, begging Mr. Greene's pardon."

Mr. Greene took the thrust very pleasantly but sharpened his weapons for a retort. On the first convenient occasion he had a string of questions arranged so artfully that while beginning very simply, they would inevitably lead to a *reductio ad absurdum*, if Mr. Alcott answered them frankly, according to his theory. Mr. Alcott replied with a simple affirmative or negative as Mr. Greene had planned, until the company began to perceive his intention, and that if the next question were answered as it must be, Mr. Alcott would be driven to the wall. The question was put, but instead of the simple answer, Mr. Alcott began to talk, and that most delightfully. He soared higher and higher, as if he had taken the wings of the morning, and brought us all the glories of heaven. I believe none of us could tell what he said, but we listened in rapture. Mr. Greene sat with one finger crossed upon another waiting for a pause to put in his question, but the time never came, his opponent was borne away in a cloud far out of sight.

I always queried whether this was intentional, or whether his good angel carried him away, but Louisa said, "O, he knew well enough what he was about."

These anecdotes may appear trivial, but they show Mr. Alcott's keenness of wit and sagacity, and his remarkable power of saying the most cutting things without wounding those to whom he talked.

(To be concluded.)

#### GIVE US A KING. BY WHEELBARROW.

It sounds conceded to hear a poor man boast of having lived a life of luxury, and yet I make that boast. I make it, I trust, with becoming modesty, but after all with pride. The sentiment is not original with me; I borrow it from Robert Burns, who, with much other valuable instruction, taught me "the luxury of being independent." Independent in soul, he meant, for neither of us was ever independent in body—that is, free from poverty and the threatenings of its ministers, cold, hunger, and care. To be sure, I was born rich. I came into the world with a large capital in the shape of health and vitality to my credit in the bank, and although it has been greatly wasted and impaired by many follies, I feel that there is quite a fund still subject to my order. I have worked from dawn till dark at the hardest kind of labor, with pick and shovel and wheelbarrow. I have unloaded lumber from ships; I have carried bricks and mortar in a hod, up, up, ladder after ladder, as high as the top-gallant mast of a man-of-war, and all for scanty wages, but I was proud of the health and strength that enabled me to do it; and the consciousness that I was a free citizen whose vote was equal in power to that of the millionaire, made life not only worth living, but a revelry of enjoyment. When the high-caste party challenged the low-caste party to fight it out, I stood by my order, the low-caste party, and fought it out on that line, not only all summer, but for four summers, and four winters, too. When the bullets knocked me over, as they sometimes did, I let the doctors patch me up again, and came forward for another round. At the end of the dispute it was my supreme luxury to "stand up stiddy in the ranks," as the low-caste banner went up and the high-caste banner came down, and I saw the flag of slavery furled for ever. It is now seriously proposed that I shall vote no more.

A large quantity of self-conceit was knocked out of me some time ago by my favorite paper, *The Chicago Tribune*. With surprise and consternation I saw that it had gone over to the Tory party. It insisted that I should be degraded, and deprived of the right to vote. This, not for any crime that I had ever done, but because of my caste and my poverty. In the creed of Toryism it is shameful to work for a living, and poverty is the unpardonable sin. The argument of *The Tribune* was contained in what is called a "lay sermon," preached by one of its editorial writers before the Chicago Philosophical Society. With high-class exaltation it proclaimed in big headlines that the lay sermon consisted of "plain truths told in cold English." The description was only half correct. The argument was "cold" enough, cold and bitter as the northern blast; but the "truths" of it were false, in morals, in politics, and in religion.



While I was reading this lay sermon three wonders grew up in my mind. First—That any woman could be "cold" enough to preach it. Secondly—What sort of philosophy was taught in that Society? Thirdly—What sort of philosophers belonged to it? Had they possessed one spark of true philosophy they would have hung down their heads in mortification to hear a woman plead in the name of social science for the starvation of the poor man's child. I do not like to believe that any woman ever said what I here quote from the report of that lay sermon in *The Tribune*. It is unnatural for any woman to scold at "Christian charity," or any other kind of charity, especially charity to little children:

Few recognize the influence of what we call "Christian charity" in drawing these irresponsible men to and keeping them in our cities. They gather like crows around a carrion, and industrious people say, "O we cannot let them starve." Cannot let them starve? Why not? How does their starving come to be any business of yours? Oh, but you cannot let their children starve! Why not? What right has any woman to be the mother of children whose father refuses or neglects to provide for them? The governor of this world lets innumerable creatures die of want. It is by letting some die that he teaches others to live, and we have no right to interfere with his arrangements.

The human soul shivers in the breeze of such "cold" blasphemy as that, and again I refuse to believe that a woman uttered it.

I don't know that lady editor, but in the following paragraph she fires very straight at me, as if she had taken particular notice of me when I first walked into the town:

By what rule of right does any man, entering a city with no more than his clothes, assume political equality with him who has dwelt there, and given time and labor to build and maintain that city?

Whether this lay preacher is a large woman or a small one, is uncertain, but I defy Mr. Sullivan, of Boston, to hit a man harder than that. I came into the city in just that way, with nothing but my clothes; that is, if you call the man inside the clothes nothing. "Gentlemen of the jury, do you find the prisoner guilty or not guilty?" said a rural justice of the peace at a recent trial. "Guiltier than a dog," replied the foreman. And that's the way I feel, "Guiltier than a dog." True, I earned an honest living, but with no more capital than a shovel and a wheelbarrow. I had the wickedness to vote right along, year after year, just the same as if I were President of the Board of Trade.

Speaking of city evils, the lady editor says that the remedy for them consists in the passage of "laws by which no one but the owners of property shall have a vote in the city government." She also says that in municipal elections "no issue is involved save that of levying and distributing taxes," and that "the govern-

ment of a city is purely a financial question." She also makes the common mistake of likening a city corporation to a private corporation formed for pecuniary profit, such as a railroad company, and logically falls into the advocacy of the cumulative vote. She would give Mr. Potter Palmer a thousand votes, and me none, on the following principle:

If one owning 100 shares in a railroad has 100 votes, while he who owns one share has but one vote, and he who owns no share has no vote, by what rule of ethics does a man who owns no share in a city vote as often or oftener than he who owns 100 shares?

Having demanded that voting in cities shall be the exclusive privilege of property owners, she rails with passionate eloquence against "the bald impertinence which enables any poor man to claim or exercise the power to control the property of his rich neighbor," meaning the exercise of the right to vote.

It is a pity that the philosophers of the Philosophical Society did not show to the lecturer that the rights of persons as well as the rights of things are involved in city government. The lives, health, peace, comfort, and security of all the people are included in the city administration, and these far outweigh in social and political importance mere considerations of property. The education of all the children is also a duty laid upon the city, but this very education is, no doubt, one of the wrongs against property of which the preacher complains. Toryism has always protested against the education of the poor. Let their children grow downward and travel backward rather than make education a tax upon the firm of Plutus, Croesus, Dives and Company. That poor children should learn anything at all is a "bald impertinence."

Fortunately, the Tories are not yet in power in Chicago, and our children can still go to school. My little daughter in the twelfth class has already learned more about the constituents of a city than this reformer and her philosophers appear to know. She learned it in what she calls a "piece" which she had to recite from one of the school books. She declaimed it for my instruction a few nights ago, in what I suppose to be the style of Henry Irving when at his best. It goes something like this:

"What constitutes a State?  
Not high raised battlement, or labored mound,  
Thick wall or moated gate;  
Not mansions proud with spires and turrets crowned;  
Not banks and boards of trade,  
Nor stock-yards, oleaginous and wide,  
Where pigs to pork are made,  
Where Bridgeport shanties waft perfume to pride.  
No; men, high-minded men,  
These constitute a State."

And the same rule applies to a city; the bricks and mortar, the bonds and mortgages, the piles of grain and the stocks of goods, the street cars and the wooden pavements; all these constitute but an inferior por-



tion of Chicago. The eight hundred thousand men, women and children are its greater elements, and their welfare rises higher than the materialism represented in taxation. Tested by the instincts of nature the political morality of this lay sermon snaps like a brittle thread. Over there is a tenement rookery, and close beside it a millionaire's palace, filled with "all the wealth of Ormus and of Ind." They are both on fire. The firemen care nothing for the worthless old tenement house, but direct all their efforts to save the palace and its furniture. Now let somebody tell the firemen that there is a child in the third story of the rookery, and instantly they leave the palace to its fate and rush to save the child. It is vain to assure them that the child is a vagrant's child, and that it ought to die in justice to the taxpayers. "Lay sermons" are useless now; through the fire and the smoke they go at the peril of their own lives to save the vagrant's child. As one of the heroes appears at the window with it, and carries it tenderly down the ladder, ten thousand people cheer. Thus the pulsations of the human heart break to pieces the mere mathematics of life, and nature itself proclaims that the poorest baby is of more consequence than brown stone fronts four stories high. Here all philosophies give way.

Besides all this, the workingmen not only build the city, but they pay the taxes too. Do the Tories wish to discuss that question? Before the debate is ended they will learn more of political economy than they will care to know. The man who owns that factory round the corner employs four hundred men. On Monday morning he shows them raw material worth five thousand dollars. They put their labor on it, and when Saturday night comes, it is worth thirteen thousand dollars. He pays the men five thousand dollars, keeping three thousand as his own reward for brain work, care, anxiety, interest on capital, taxes, insurance, and the risk of a falling market. Will it be pretended that in this three thousand dollars the workmen have not paid their own taxes and their employer's too? Because the men who own all the laboring muscle of the city, and all the artisan talent, are permitted to vote, the Tories exclaim like the fools of Israel, "Give us a king to rule over us."

So long as I have the ballot I am the friend of order; take it away from me and I become a revolutionist. Toryism in America is folly. The boon that *The Tribune* seeks would be its own destruction. If it could have its way and disfranchise all the workingmen, the value of the fine building on the corner of Madison and Dearborn would depreciate. Stocks would fall, and there would be such a "shrinkage in values" as this generation has not seen. The ballot

is the safety valve of American society. So long as I have equality of rights and opportunities I will never complain that my neighbor is rich while I am poor. Take away the ballot from the workingmen, and instead of a police force you would need an army to preserve your privileges and your property. So long as the ballot is impartial, property is safe from revolutionary violence. The social inequalities that now exist, we shall struggle to remove by moral forces, and the amelioration of the laws, by lifting up the poor without dragging down the rich. Deprive us of our moral weapon, the ballot, and we shall then try to equalize conditions by the sword.

#### ETERNITY.

LOUIS BELROSE, JR.

Along the waste of chaos, from its source  
Beyond the limit of the realm of mind,  
Rushes resistless in a whirling wind  
The mighty tumult of an aimless force.

Great clouds of star-dust rise along its course,  
And on a settling atom left behind  
Beings are formed, with power of thought combined  
With love and hate and pity and remorse.

They plan and toil and struggle, sell and buy,  
Make war among themselves and take to wife,  
While generations pass and multiply.

The little creatures wage their little strife  
Looking with longing on their little sky  
In expectation of eternal life.

Washington, D. C.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXI.—Continued.

One evening as the Prince was sitting silently by Ilse's side, and the gentlemen present were engaged in passing indignant judgment on the arbitrary management of the Vatican Library, Ilse proposed to him to look over a work that her husband had bought, containing good portraits of famous men of learning and artists. They went to examine it by a lamp in the next room, and the Prince looked at the portraits with languid interest. "Of many of them I only know," began Ilse, "what my husband has told me; I have not read their books, and of the beautiful things they have painted and composed, I know but little."

"That is just my case," replied the Prince, honestly, "it is only about the musicians that I know anything."

"Yet it is a pleasure to look at their portraits," continued Ilse; "one judges from them what the character and merits of these men may have been, and when one asks any person who knows more, one finds one's views sometimes confirmed and sometimes erroneous. That seems to make us like the men and be-

\* Translation copyrighted.



come intimate with them, and we seek for opportunities of making acquaintance with their works of art and learning. I long to know more about them. But when one has read about a great man, and after a time sees his picture, then his face appears like that of a dear friend."

"Do you like to read?" asked the Prince, looking up.

"I am beginning to like it," replied Ilse; "but unlearned heads do not take in serious things at once, especially when they excite earnest thoughts."

"I do not like to read," replied the Prince; "at least in the way in which it is pressed upon me. It is tedious to me, for I have never learned anything thoroughly, and I know nothing well."

He said this with bitterness. Ilse was shocked at the confession. "Your Highness will find that that will change now—you will have such excellent opportunities here."

"Yes," replied the Prince, "from morning till evening, and one thing after another. I am always glad when the lectures are over."

Ilse regarded the young Prince sympathizingly. "That is very unfortunate for your Highness. Is there nothing that you would care to know or possess? no collection of minerals or butterflies, or of rare books or engravings, like the Doctor over there has? In this way one can find enjoyment the whole year, and while collecting these valuable things one learns a great deal."

"If I wish to have anything of the kind I can have any quantity of them collected," replied the Prince; "but to what end? I have already so many things about me. If I were to express a wish to collect minerals, everybody about me would be in a state of excitement, and it would either be forbidden or I should have a whole collection brought into the house."

"That indeed is of no use," said Ilse, pityingly; "the only pleasure is in looking after each individual thing one's self; no man can know all, but everyone should have something which he understands thoroughly. If I may venture to compare my insignificant life with the important one that awaits your Highness, I should like to tell you my own experience. When my good mother was laid on her deathbed I was quite a young girl, but I wished to take her place in the household. I found, however, that I was quite at a loss what to do. I did not even know whether the people were industrious or lazy; I did not understand how to do anything, and if it was done badly I could not teach them better. One evening I sat discouraged and angry with myself, and I believe I wept. Then my good father said, 'You should not undertake so much at once, you should first learn some one thing accurately.' Then he took me into the dairy. Does your Highness know what that is?"

"Not exactly," replied the Prince.

She then explained to him the whole day's work of the dairy. "This was the result: I took it in hand myself, learned the work thoroughly, and thus was able to judge the maids. I learned everything about the cows accurately, and which was the best kind for us, and why; for every species does not thrive everywhere. I soon became ambitious of making good butter and cheese. I obtained information from those who were skilled in it, and sometimes read a book about it. Then I conferred with my father about improvements, and just when I came away we were thinking of getting a new machine instead of our large wooden churn. It is now set up; it is said to be very good, and to make good butter; but I have not seen it. Does your Highness know anything about churning?"

"No," replied the Prince.

Ilse described the process to him as far as she could, and continued: "When my father made up his books at midsummer, it was my pride that the dairy produce should every year increase in amount; but I was provoked that my father laughed at my small profits; he valued the cows for other reasons." Ilse gave a slight explanation on this point, and then continued: "From this time, your Highness, I felt quite at home in the world. Now, if I go to a factory, I find myself looking upon it as another kind of dairy, and when state revenues and government expenditure are talked of, I compare them with our house and farming accounts. But it is very silly in me to talk to your Highness about butter and cheese."

The Prince looked frankly into her eyes. "Ah kind lady," he said, "yours has been a happy life; I have never been so fortunate as to be able to enjoy quietly what I like. From morning to evening I have been in leading-strings, and passed on from one person to another. When, as a child, I went into the garden, the governess or tutor was always there, and when I ran or jumped about on the grass, I was to do it in a becoming manner; once, when I wished to turn a somersault, like other boys, it excited the utmost dismay, on account of its indecorum. Every moment it was said, 'that was not befitting a Prince,' or, 'this is not the proper time.' When I came out of my room I was stared at by strangers, and had always to take notice of them and bow to them; I was told with whom I was or was not to shake hands, and who I was or was not to accost. Every day passed thus. One was always to use empty forms of speech in three languages, and every day the uppermost thought was, whether one had conducted one's self well. Once I and my sister wished to lay out a little garden; immediately the head gardener was called to dig and plant for us, thus all our pleasure was spoilt. Then



we wished to act a little play, and had thought of a nice piece; again we were told that it was foolish trash, and that we must learn a play by heart, with French modes of speech, in which the children always exclaimed how dearly they loved papa and mamma, whilst we had no mother. In this training for mere show my childhood passed. I assure you I know nothing thoroughly, and though I remain here at study forever, I feel that it can do me no good, and I shall enter the world a very useless being."

"Ah, that is sad," exclaimed Ilse, with deep sympathy; "but I entreat of your Highness not to lose courage. It is impossible that the life here, among so many men of the highest capacity and worth, should not be beneficial to you."

The Prince shook his head.

"Think what a future lies before your Highness," continued Ilse. "Ah, you have every reason to be brave and confident. Your office is the highest on earth. We others work, and are happy if we can only preserve one human being from evil; but you will have the welfare and lives of thousands in your power. What you do for schools and learning through the selection of good or bad teachers, and your decisions as to peace or war, may ruin or make the whole country happy. When I think of this exalted vocation, I feel a deep respect for you, and I would implore you on my knees to do your utmost to make yourself a worthy prince. Therefore, the best advice for you is, that you should be willing to learn even what is wearisome to you. For the rest, have confidence in the future: you will yet have pleasure in life, and a feeling of worth and capacity."

The Prince was silent; for every allusion to his future position as Sovereign was forbidden at Court, and even less than others was the heir to the throne allowed to indulge in such a thought or cherish such a hope.

"I hear lectures enough," said the Prince, at last; "but I wish that I might have been brought up by a country gentleman, as you have been."

They returned to the gentlemen, and the Prince paid much attention to their conversation during the rest of the evening. When he went away, Ilse said to her husband: "There is one who has what would make thousands happy, yet he is unhappy, for they have bound up his honest heart in leather like an automaton. Oh, be kind to him, Felix; open your soul to him, that he may gain some of your confidence and power."

Her husband kissed her, and said, "That will be easier for you to do than for me. But he has himself suggested the right thing; three years with your father would be the best training for him and his country."

At breakfast the following morning the Chamber-

lain took the newspapers from the hand of the lackey; the Prince was sitting silently at table, playing with a tea-spoon, and watching a fly which was disrespectfully trying to make its way from the edge of the cream-jug into the princely cream. As the written instructions imposed upon the Chamberlain the duty of guarding the Prince from all dangerous reading—by that was meant all discontented newspapers and improper novels—he thought it best to give him the inoffensive "Daily Gazette," whilst he himself took up a loyal paper, in order to examine the court news and accounts of promotions and the bestowal of decorations. He had long finished his reading, but the Prince was still engaged with his shellfish and oysters. The Chamberlain observed with regret how little interest his young Highness took in the course of the world. An acquaintance of the Chamberlain had been promoted to be master of the horse, another announced his betrothal, and he did not fail to draw the attention of the Prince to this news; but the latter only smiled in his absent-minded way.

The Chamberlain then entered upon his next duty: he reflected upon the programme of the day. As it was incumbent upon him to make the Prince acquainted with the novelties in art and literature in the city, he waited impatiently till the Prince had done with the "Daily Gazette," in order to obtain information from it on these points. At last the Prince interrupted his cogitations by saying to him, "Mention is made here of a permanent exhibition of agricultural implements; what is there to see in such exhibitions?"

The Chamberlain tried to explain, and was delighted to make a proposal to visit this exhibition. The Prince expressed his assent by a slight nod, looked at his watch, and went up to his room to go through his three hours' morning course: one for the science of politics, one for mythology and æsthetics, and one for tactics and strategy; then he accompanied his attendant to the exhibition.

Even the Chamberlain was bored as he followed his young master through the great rooms, in which stood countless inexplicable machines. The agent of the manufacturers began his explanations; the Chamberlain asked such questions as would show a fitting love of knowledge; the Prince went patiently from one unintelligible object to another, and heard something of plows, scarifiers and rollers. At last, at the great threshing-machine, the expounder had to call a workman to bring a step-ladder, by ascending which they would be enabled to admire the internal mechanism. The Prince left this labor to the Chamberlain; played meanwhile with his lorgnette, and asked the agent, in the low tone in which he was wont to speak:

"Have you any butter-machines?"

"Yes," was the reply, "several different kinds."



The Prince then quietly turned his attention to the great threshing-machine, and learnt to value the beautiful arrangement by which it threw out the straw into an invisible hayloft. At last they came to the row of machines on which he had set his heart—the modern successors of the old time-honored churn. There they stood beside each other—the little hand-churn, by which, if the assertion of the guide was to be trusted, a housewife could make her butter in an incredibly short time; and the great machine, which could work sufficient to supply the needs of the largest dairy. It was described to the Prince how the cream, when poured in, was put in quick circular motion, and how, as a result of this, the butter was separated from the milk. He had already heard this much more agreeably told; but it gave him pleasure to see the advantages of the modern invention, and he became thoroughly convinced of its superiority. To the astonishment of his attendant he asked intelligent questions, and took hold of the crooked handle, endeavoring to turn it a little, but withdrew his hand with an embarrassed smile. At last he inquired about the price. The Chamberlain had rejoiced at the laudable desire of knowledge which his young master had shown, but was much humiliated when the Prince turned to him and said, in French, "What do you think? I have a mind to buy this little machine." "For the sake of turning the handle," thought the Chamberlain, with an inward shrug of the shoulders. "How is it that your Highness takes an especial interest in this?"

"It pleases me," replied the Prince, "and one ought to buy something of the man."

The pretty machine was bought, carried to the Prince's apartments, and placed in his study. Towards evening, whilst the Prince was taking his music lessons, the machine had to appear in the report which the Chamberlain prepared for the reigning Prince. The writer extolled the interest which his Prince had shown in the useful implements of German agriculture. But seldom had it been so difficult to the poor Chamberlain to perform the duty of a true courtier, whom it behooves to suppress his own personal feelings and to gloss over agreeably what is annoying; for, in truth, he felt deep humiliation at the silly trifling of his Prince. But at Court one does not thoroughly learn all the intricacies of a princely mind, however much one may study them. Even to the wisest chamberlain there remain certain inscrutable depths.

The Hereditary Prince covered the butter-machine with a silk cloth, and when he was alone, approached it carefully, turned the handle, and examined the mechanism.

Some days after, when the valet had undressed

the Prince, placed his slippers for him, and made his bow for the night, the Prince, contrary to custom, remained sitting in his chair, and stopped the departure of the servant by thus accosting him: "Krüger, you must do me a favor."

"What are your Highness's commands?"

"Obtain for me to-morrow morning early, without any one seeing you, a large jug of milk; but do not put the milk in the account."

"Does your Highness wish it boiled or not boiled?"

This was a difficult question. The Prince twirled his moustache silently and looked helplessly at Krüger.

"I hardly know," he began at last. "I should like to try churning a little."

Krüger was sharp enough to understand that this wish was connected with the new machine, and, long accustomed not to be astonished at anything in people of rank, he replied: "Then the machine must first be scalded, otherwise the butter will taste bad; and, besides, I must order the cream; so your Highness must wait patiently for a day."

"I leave everything to you," said the Prince, well pleased; "take the machine, and be careful that no one hears anything about it."

When Krüger, two days after, entered the Prince's room, early in the morning, he found his young master already dressed. Proud of his confidential position, he informed him, "The Chamberlain is still asleep, and all is ready."

The Prince hastened on tip-toes into the room. A large can of cream was poured into the machine; full of expectation, the Prince seated himself by the table and said; "I will turn it myself." He began to turn while Krüger looked on.

"But it must be done with regularity, your Highness," admonished Krüger.

The Prince could not resist opening the cover and looking in. "It will not come, Krüger," he said, despondingly.

"Cheer up, your Highness," said Krüger, "and graciously permit me to go on with the turning."

After that Krüger turned while the Prince looked on.

"It comes," cried the Prince, delighted, as he looked in.

"Yes, it's made," replied Krüger. "But now comes other work. The butter must be taken out and washed, if it please your Highness?"

"No," said the Prince, doubtfully, "that will never do. But the machine is good; bring me a spoon and some white bread, I will fish out what I can; one must learn to help one's self."

(To be continued.)

The hand of little employment has the daintier sense.—Shakespeare.



## BOOK REVIEWS.

ESQUISSE D'UNE PHILOSOPHIE DE L'ÊTRE. Par J.-E. Alaux. Paris: 1888. Félix Alcan.

M. J.-E. Alaux has written two works, *De la Métaphysique considérée comme Science*, and *Analyse Métaphysique*. These works, we are informed by the author in the preface of the above mentioned little book, are only programs which will be explained by a larger work in preparation. The *Esquisse d'une Philosophie de l'être* is not yet the promised book; it is rather an attempt at writing a *théodicée*, it is a philosophical poem. This is the merit and at the same time the defect of the book. It is as didactic as that of Spinoza's, not investigating or enquiring. We quote here a number of passages which are so selected as to serve for a summary. A translation would take away much of the zest, and as the language is simple and poetic, we fancy that our readers will prefer the original version.

Mr. J.-E. Alaux uses as his motto a passage from J. Lachelier: "Tout être est une force, et toute force est une pensée qui tend à une conscience de plus en plus parfaite d'elle-même."

On this idea the author builds the structure of his philosophy:

"L'être possible est l'être en puissance. La puissance n'est pas seulement la capacité d'être, mais la tendance à être: tout être possible tend à se réaliser, toute virtualité à se manifester, toute spontanéité à se déployer: un être n'est pas produit, mais se produit dès qu'il lui est permis de se produire. — Un être n'est réel et en acte qu'autant qu'il est manifeste, visible: visible à autrui, il est pour autrui; visible à soi, il est pour soi. En soi, il n'est que puissance; pour être réel, pour exister, il faut qu'il apparaisse. S'il n'apparaît qu'à autrui, il n'a de réalité que relative à autrui: il n'en a pas en soi, n'étant en soi que puissance; ni pour soi, ne se connaissant pas. Quand il se connaît, quand il s'apparaît ou se manifeste à lui-même, quand il prend conscience de soi, alors seulement il a une réalité vraie, absolue, alors il existe. — Il existe enfin, d'un véritable être et pour soi-même, quand il est conscient."

"L'être est un et multiple: l'être est dans les êtres, et un même être dans tous les êtres; les êtres sont dans l'être. — L'être est substance et mode. — Tous les êtres sont substantiels. Une même substance est au fond de toutes les substances; une même puissance, de toutes les puissances; une même cause, de toutes les causes."

"L'être universel, fond commun de tous les êtres, leur commune substance, leur commune puissance, leur commune et primitive énergie, se réalise d'abord ainsi, en un premier être, unique, éminent premier, et parfait. — Cet être est Dieu. — Dieu se connaît, puisqu'il est."

The last sentence contains a fallacy which leads the author to theism.

"L'infini du parfait être n'est point une extension infinie, mais un pouvoir infini d'agir, libre d'agir ou de n'agir pas. — L'être infini n'est pas acte infini, mais puissance infinie. — Ce qui ne peut être fait, Dieu ne le fait pas; et, de ce qui peut être fait, il fait ce qu'il veut faire. — Il est l'être, et il est un être. (If God is *Being*, how can he be a *being*?) — Il crée le monde, en le faisant passer du non-être à l'être, c'est-à-dire de l'être en puissance à l'être en acte. — Toute étendue réelle est finie, et le monde a toujours des limites; mais l'infini de l'étendue possible, qui est l'espace, permet toujours, au-delà de toute étendue réalisée, de nouvelles réalisations d'étendue pour de nouveaux êtres. — La Force suprême du monde, le principe intétendu de l'étendue universelle, est une monade présente à tous les êtres, qui tiennent d'elle leur être, leur chaleur, leur lumière et leur vie. Tel est le rapport de l'être immense aux êtres étendus; telle est l'indivisible ubiquité de Dieu."

"La puissance d'être n'a pas de commencement; l'existence de l'être en a un: c'est l'acte qui le pose. L'acte par lequel Dieu pose le monde est le commencement du monde. — Non de l'être

virtuel, qui n'a point de commencement, mais de l'être réel."

"La Puissance, l'Intelligence et la Vie en Dieu ne sont pas trois attributs, mais trois *hypostases*, trois *personnes*, personnages ou rôles, trois fonctions déterminées par trois natures irréductibles: la Puissance, par la nature de l'être; l'Intelligence, par la nature de l'intelligible; la Vie, par la nature du monde. — L'être est à la fois, pour l'Intelligence, le vrai; pour la sensibilité, le beau; pour la volonté, le bien. — Notre théisme diffère de celui qui a cours; mais, s'il rompt avec la tradition philosophique, il s'accommode aussi bien, mieux peut-être, à la tradition religieuse, à la croyance instinctive des peuples, à ce sentiment invincible qui fait que l'homme adore et prie, à ce fond de l'âme 'naturellement chrétienne' dont il convient que la philosophie tienne compte."

L'âme est ce qui a conscience de soi, le corps est l'autre, le contraire uni à elle pour la déterminer et l'exprimer en son être fini. — Tout être est pour soi-même esprit, et pour autrui matière; nous ne percevons rien hors de nous que matière, et les esprits mêmes, dès qu'ils entrent en communication avec nous, revêtent pour nous un aspect matériel. — L'esprit et la matière ne diffèrent que d'aspect. La monade à peine consciente, puissance de premier degré, sourde volonté d'être, est matière ou élément de matière; un jour elle sera esprit. La monade prise en soi, à part des autres sur lesquelles elle agit et qui agissent sur elle, est esprit, en puissance ou en acte; un agrégat de monades est matière. La monade enfin, consciente de soi, est esprit pour elle-même; elle est matière dans le rapport à d'autres formant ensemble et avec elle une masse perceptible à autrui."

"Hélas! hélas! l'homme pouvait pêcher, il pêcha. — Tout est bien, absolument parlant: et il n'y a point de mal, puisque tout est ce qu'il doit être. Il faut donc concevoir un mal qui soit un bien; un ordre universel dont un certain désordre fasse partie. — Tout être est divin; mais l'homme l'est excellement: l'homme est un dieu, car il est maître de son vouloir, capable d'un bien qui sera son œuvre, auteur et comme créateur de son être futur: il est libre. Nous voulons naturellement le bien, qui est l'être."

"La liberté fait le bien ou le mal, fait la perfection ou la dégradation de l'être, l'accroissement ou l'amoindrissement, et le bonheur ou le malheur à la suite. Dans le monde qui est le nôtre, la liberté a fait le péché, et le péché la souffrance."

"Il n'importe ici que le Christ soit un personnage ayant historiquement vécu, ou ne soit que l'Homme idéal. — Les Génies, les Puissants secondent la Providence, et font son œuvre. Ces esprits forment avec Dieu une société, une Cité parfaite dont il est le roi. La loi de cette Cité des esprits est l'amour. — Et telle est l'Eglise: la société des rachetés. — Les justes rachètent, les faibles sont rachetés."

THE NATIONAL REVENUES. *Albert Shaw*. Chicago: A. C. McClurg & Co.

This is a collection of papers by American economists, edited by Mr. Shaw, himself a writer on the same line of topics. The essays are preceded by an introductory chapter where, after calling attention to the causes of sectional division arising from slavery and the civil war, which have hindered the free discussion of political topics, the writer now premises that we have outgrown these differences, so that "with harmony of interests and recognized oneness of destiny" we can give ourselves to the study of questions of national concern. The contents of the book which follow deal with such topics as Protective Tariff, Taxation, Wages and the Tariff, etc. Most of the writers are well known college professors, including such names as Henry C. Adams of Michigan University, Anson D. Morse of Amherst, Francis A. Walker of the Massachusetts Institute of Technology and others of equal note. This little volume contains much useful information in convenient shape and is a desirable addition to the library of the student of political economy.

C. P. W.



## CONTENTS OF FORMER NUMBERS OF "THE OPEN COURT."

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PROF. E. D. COPE,.....In No. 40.  
THE NATURE OF MIND.

By THE EDITOR OF THE OPEN COURT. No. 40  
Professor Cope gives in clear and comprehensive outlines his view of mind; he opposes Materialism and Dualism, stating that "the situation is monistic." However, "as the amount of thought can most assuredly be measured, but the quality of thought can not," the eminent American scientist concludes that "consciousness has a field of its own where it ranges free from the bonds of energy." The directive element (will and mind) is qualitative not quantitative and controls the movements of the non-mental environment. "This statement may be called occultism," Prof. Cope adds, "and I suppose justly. But such is the fact."

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P. O. DRAWER F. CHICAGO, ILL.

### RECENT CONTRIBUTIONS TO "THE OPEN COURT."

PROF. E. D. COPE.

In Number 23 Professor E. D. Cope treats of "Evolution and Idealism," and finds in the evidence of evolution the refutation of the doctrine of Idealism. He concedes that much of what we consider the objective world is unreal and has no existence, except, as we perceive it, like the snakes, for instance, to the victim of *delirium tremens*; and he agrees that "the properties of matter" owe much of their character, and even their existence, to our senses, which give matter all its qualities, or, at least, modify and change them according to the number of our senses and their ability to perceive. Yet, for all that, he says: "If a given supposed object be purely a mental state on the part of the subject, a rational cause for the production of that state is wanting."

With great self-confidence, Professor Cope says: "Evolution gives the *coup de grace* to idealism of the consistent type. In the gradual unfolding of organic life it sees the two universal facts, subject and object. It sees them interact and influence each other," and further on he says: "It is equally competent for the materialist to deny the existence of mind as for the

idealist to deny the existence of matter. The materialist beholding the imperfection of the senses may pronounce them to be, one by one, incompetent witnesses, and declare them to be illusions. But the fact is, both exist, object and subject, matter and mind."

MORRISON I. SWIFT.

In No. 23 **Morrison I. Swift** makes a vigorous appeal to the churches that they become actively interested in what is generally known as "**The Social Problem**," and that they take the lead in Christianizing the people after the manner practiced by Jesus in Judea and by his disciples, as related in the New Testament. Mr. Swift's language is clear, eloquent, pervaded by an ideal humanitarianism, and is not only respectful to the clergy but even reverent. He thinks the opportunities of the present and the future are in the hands of the churches, and that the clergy may lead the van of social progress instead of trailing along behind the baggage wagons, as they have so long been contented to do. "In this country," he says, "where the church has the allegiance of so large a portion of the people, where it represents a large proportion of the specially organized moral forces of the land, where finally its material resources are almost unlimited and the money power of the country is its friend and supporter, it would be possible for the church to bring about the reform that is needed, with little difficulty, if it desired to do so." Here Mr. Swift is confronted with the important objection that should the church take the lead in the social revolution or even in social reformation so far as "to establish such fair distribution of the products of human industry that superabundance and luxury will not exist," the "money power of the country" would cease to be its "friend and supporter" and the clergy might cease to be a priesthood. He presents the difficulty thus: "It is said by some that the pulpit will not go much beyond those who maintain it. This is to acknowledge that the opinions of the clergy are to-day bought and paid for, just as lawyers are hired and legislators sent to uphold the ideas of their constituency." Notwithstanding this difficulty, Mr. Swift sees "a slumbering lion in the Christian ministry, which will, ere long, awaken and put forth its formidable powers for the poor and the oppressed."

Two other essays by Morrison I. Swift, are contained in Nos. 32 and 44. In the one he speaks of *The Scholar as a Reformer*, and in the other of *The Masses as Reformers*. The scholar has imbibed something of the historic spirit; he perceives, moreover, that the change in human institutions must ever be along the line of the moral and the ideal. Life can not be conceived in its full import, until the individual comprehends himself as the bearer of the rare essence and as containing, in no merely figurative way, the temporal hereafter. It is the mission of the scholar to reveal the larger and encompassing world of his soul, not of the bookish professional scholar but of him who has sought a profound comprehension of the meaning of life in its complexity and breadth. He must guide the masses, he must clear away the mystifying creeds and establish the truth that all men are born to live moral and beautiful and expanding lives in whatever sphere they may labor.

Mr. Swift considers the masses as the raw material for reform. There are rich people who think that general betterment means loss to them. But to dread reform is to misunderstand. Whatever is imperfect in society is injurious to all classes. A reform at one point reaches every point. The essayist sets great hopes on the masses—indeed, hopes too great, which may prove illusions. "Their minds," he concludes, "are more fluid and therefore they are more capable of growth into a surviving harmony with the conditions of life than those whose adaptations were formed earlier and in less enlightened times. . . . They are to become an infinitely more important factor in the life of the race than ever before." . . .



# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 50. (VOL. II.—24.)

CHICAGO, AUGUST 9, 1888.

Two Dollars per Year.  
Single Copies, 10 cts.

## THE PSYCHIC LIFE OF MICRO-ORGANISMS.\*

BY A. BINET.

Translated from the "Revue Philosophique" by dōpus.

PART II.

### THE MOTORY ORGANS AND THE ORGANS OF SENSE. (Continued.)

*The Flagellum.* The study of the third organ of locomotion, the flagellum, brings us to speak of the class of Mastigophores and more particularly of the group Flagellata. The Flagellates are Protozoa of very small size, all in all, very much smaller than the ciliated Infusoria. They have no vibratile cilia at all, but they are always equipped with one or more filamentous appendages which have the form of a long lash. This is the flagellum. This lash, like all the organs of locomotion hitherto studied, has two functions: it is at once an organ of locomotion and an organ of prehension. The flagellum is most frequently single or double (see fig. 4, representing the *Euglenadeses* with its single flagellum); sometimes a person can count a much larger number of them, four, six, eight, ten, and more. As regards the insertion, the same variations are met with. Sometimes the flagella are very numerous and seem to be planted on the same point of the surface of the body, thus forming a brush or plume. In other species we find several flagella arising in the anterior extremity of the body, directed forwards, and also posterior or caudal filaments which are turned toward the rear. This is observed in the genus *Trichomonas*; the anterior flagella serve for purposes of locomotion, perhaps also for the prehension of food; the posterior flagella, on the contrary, are solely organs of locomotion; they resemble a trailing tail and perform the functions of a rudder.

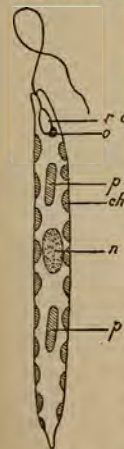


Fig. 4.  
*Euglenadeses*.  
r, c, = contractile reservoir; c, = eye; p, = disk of the paramylon; ch, = chromatophores; n, = nucleus.

In passing we may point out the great morphological resemblance between the Flagellata and the spermatozoa of animals, the antherozoa and the zoöspores of plants. The organs of propulsion in these beings are the same.

The Protozoan with its flagellum executes the most varied movements, moving first in one direction, then in another, and in different planes; sometimes the animal curves about entirely; but most frequently, when he uses it as an organ of prehension, he extends it its whole length before himself; the basilar part remains completely immovable and rigid, while the free end alone executes movements destined to drive food to the mouth, which is generally situated at the base of the flagellum. Ehrenberg gives to the flagellum the name proboscis; its peculiar mobility renders it worthy of this name. The flagellum, like the vibratile cilium, is an expansion of the protoplasm through the enveloping membrane. M. Certes has observed a Protozoan, the flagellum of which between whiles re-entered into the mass of the body, with which it mingled; it was replaced by a pseudopod which soon attenuated and took the form of a flagellum.

Bütschli has recently made a very interesting observation on this organ of locomotion. Under certain circumstances, the Peridinia (Dinoflagellates) throw off their long flagellum and enter into a state of repose; they generate them quite as easily. In the *Glenodinium cinctum*, Bütschli has seen the flagellum roll itself up first like a cork-screw, and then suddenly detach itself from the animal; having become free, it stirs about in the water for several minutes before becoming motionless. This observation enables us to refute those naturalists who believe that the vibratile cilium is an appendage of the cuticle, by bringing forward the fact that when the cilia with the portion of the cuticle in which they are inserted are separated from the cell, the cilia continue to move; we have just seen that the flagellum moves even after it is separated from the cuticle; this persistence of movement is sufficiently explained by the protoplasmic nature of the cilia and of the flagellum.

From another point of view, the observation of Bütschli gives us a curious example of the phenomena of *autotomy*, which have recently been studied by Frédéricq.

The pseudopodia, the vibratile cilia, and the flagellum, constitute the three motor organs that are most frequently found in the kingdom of the Protista. Among the Infusoria, moreover, particular differentiations of the protoplasm have been described, which

\* Translation copyrighted.



may be compared to the muscular fibres of the higher animals. The Vorticellæ are supported by contractile peduncles. These are filaments capable of rolling themselves up into the form of a cork-screw, when the animal is disturbed. Certain Infusoria can modify the form of their body by a sudden contraction: they have been called *metabolic*; such are the Stentors, the Prorodons, the Spirostomes. In contradistinction, those which do not change their form, for example the Parameciæ, have been called *ametabolic*. According to the observations of Lieberkühn, which date back to 1857, the metabolic Infusoria have their bodies divided into large granulous bands, separated by bright filaments. It has been asked which is the contractile element: is it the band, or is it the filament? Oscar Schmidt, Kölliker, Stein, and Rouget think that it is the band which is the contractile element. This opinion is based on the following fact, which M. Rouget was the first to observe: at the moment at which the animal contracts, the band presents transverse stria; this appearance is due to the fact that the bands contain in the state of rest small granules which, during the contraction of the animal, are disposed in transverse series, so as to recall the *sarcous elements* of Bowman.

Lieberkühn, Greef, and Engelmann attribute the active part to the bright fibre. Engelmann has based his opinion on the fact that he recognized in the filament the property of double refraction, which, according to him, belongs to all contractile substances, while the substance which separates the filaments shows only single refraction.

However that may be, it is one of these two elements that possesses the power of contraction, and which deserves the name of *myophane*, which Haeckel gave it. It is very remarkable that in the Stentors and the Spirostomes the fibrillous stria are in intimate connection with the basilar extremity of the vibratile cilia. In the Vorticellæ one can clearly see the fibrils converge toward the axis of the style, the contractile element of which they constitute.

We shall not leave the study of the motor organs without saying a word about the rhythmical movements which can be seen in the contractile vesicle of the Micro-organisms, vegetable as well as animal. This vesicle is a small cavity which is dug into the protoplasm, and which alternately increases and diminishes its capacity. Scientists by no means agree as to its exact function; Bütschli and Stein consider it to be a secretive apparatus. Its pulsations are very regular. Their number is constant in every species. In the *Chilodon cucullulus*, a pulsation occurs every two seconds; in the *Cryptochinum nigricans*, every three seconds; in the Vorticellæ, every eight seconds; in the *Euplotes*, every twenty-eight seconds; in the *Actinaria*

*incurvata*, every six minutes; Rossbach, whose curious experiments with the vibratile cilia and the cirri we have already cited, has made analogous experiments with the contractile vesicles. He observed especially that, under the action of alkaloids, the contractile vesicle ceased pulsating in diastole, and dilated enormously; but poisonous agents do not act all at once on the movements of the vesicle; they begin by paralyzing the larger cilia, which are under the influence of the will. The movements of the vesicle, like those of the small cilia, persist for a much longer time. M. E. Maupas has seen Parameciæ, killed by a discharge of trichocysts, become completely immobile, with their vibratile cilia inert and rigid, while the contractile vesicle continued to pulsate with the same activity; this activity continued for an hour.

We have now briefly examined the morphology of the motor organs of Micro-organisms.

It is very difficult to determine the physiological process of the movements produced by these organs. The simplest movements and the ones most easily understood, are those by which a cell suddenly and strongly irritated withdraws its prolongations and assumes a spherical form; this change of form can be explained by a quick condensation of the protoplasm, which becomes the seat of a phenomenon similar to that of a contracting muscle. The sudden modifications which are observed to take place in the form of the so-called metabolic Infusoria are in this way explained by an analogous phenomenon, so much the more evident as the Infusoria which possess this property, show in the cortical layer of their protoplasm (ectosarc) granulous bands which have with more or less justice been compared to the muscles of the higher animals. The displacements of the body determined by the pseudopodia, by the vibratile cilia, and by the flagellum are much more difficult to interpret; meanwhile it is probable that the movement proceeds from the contractions of the protoplasm which are produced either in the ectosarc or in the motor organ itself; the latter is automobile, as is seen, for example, when a flagellum separated from the rest of the body continues to move in the liquid.

It is well known that any number of discussions have been raised as to the manner in which the pedicel on which the Vorticellæ are mounted, contracts. Still more obscure is the oscillatory movement of the Bacteria. These small beings are very mobile when they find themselves in a liquid; they frequently exhibit a movement of oscillation which sometimes carries them forward, sometimes backwards. An attempt has been made to explain these movements by postulating the presence of organs of locomotion, extremely slender filaments planted at one of the extremities of the Bacteria like small rods; but the existence of these



organs has not been absolutely proved. Even more obscure is the movement observed in certain Gregarines. It would seem that in the case of these animals, which are often of considerable size, one ought to be able to understand the principle of their movements much more easily than in the case of such small beings as the Bacteria; but this is not the case. The Polycystids have a very peculiar manner of moving; the motion is one of perfect translation, uniform and rectilinear; the animal seems to slide all of a piece over the object-plate; it can go to the right, to the left, stay its motion and resume it again; it is free in directing its movements. Now, during this movement nothing can be seen to take place in the body from within or without. An analogous phenomenon is to be observed in the Diatomes. Some scientists have wished to explain the mysterious motion by translation executed by the Gregarines, as being due to an imperceptible undulation of the sarcode; but if there were any undulations whatever, one ought to observe a correlative movement in the granules inside; now this is something that is never seen.

Thus there still exists a great deal of obscurity concerning the principles determining motion among the Proto-organisms. The theories based upon muscular contraction that have been propounded from observing higher animals, are by no means sufficient to explain the phenomena of motility among certain Protozoa and Protophytes.

*Nervous System.* Hitherto not the minutest trace of a central nervous system has been found in a single Proto-organism. The nervous function among these inferior beings devolves upon the protoplasm, which is irritable, which feels and which moves, and which, in certain species, as we shall see later on, is even capable of performing certain psychic acts, the complexity of which seems quite out of proportion to the small quantity of ponderable matter which serves as a substratum to these phenomena. There is, moreover, no occasion to be surprised that an undifferentiated mass of protoplasm should be able to exercise the functions of a veritable nervous system. In fact every nervous element is nothing else than the product of protoplasmic differentiation; the protoplasm embodies in itself all the functions that, in consequence of an ulterior division of labor among the pluricellular organisms, have been assigned to distinct elements.

It has rightly been held, therefore, that if no nervous system, anatomically differentiated, existed in proto-organisms, it must be admitted that their protoplasm contains a *diffused nervous system*. Among all the observations that uphold this idea, we must cite one to which M. Gruber, a professor at Freiburg, in Breisgau, has recently called attention. This obser-

vation was made on a large, ciliated Infusory, the Stentor, of which mention will be made so often hereafter that it will be advantageous to give a full description of it beforehand.

The Stentor has an elongated body, broadened in front like a funnel, and able to fasten itself by its posterior extremity. The edge of its peristome is covered by a belt of vibratile cilia disposed about a spiral line. The mouth occupies the most sunken part of the peristome.

The body of the animal is striated with longitudinal bands; at the plane of the peristome, these bands take a different direction: they become transversal and spiral. In the interior of the protoplasm can be observed a contractile vacuole and a nucleus like a string of beads, made up of a large number of grains. This

Infusory, like all the Ciliates, multiplies by fission; a contraction, is seen to take place in the middle of the body; the segment below the contraction generates a peristome similar to that of the upper segment; then a second contractile vacuole is formed, and soon the two segments represent two complete animals which possess all their organs. Nevertheless, the two Stentors continue to be united for a certain length of time by a bridge of matter, located even with the point where the contraction took place; this bridge of matter gradually grows thinner and thinner and becomes as fine as a thread. (See fig. 5.) Now, Gruber has observed that the two Stentors united by this



Fig. 5. Stentor in process of division.

bridge of protoplasm exhibit perfect harmony in their movements; they always sway in the same direction at the same time; and this harmony is necessary, because the least contrariety of motion would suffice to break the feeble bond that unites them. Moreover, their vibratile cilia beat in unison. To explain this concordance in the movements of the two animals, Gruber assumes that the entire mass of their protoplasm performs the function of a diffused nervous system, which has the effect of regulating their movements and of making them harmonize.

We might add that the Infusoria possess not only a diffused nervous system, but that they must of necessity possess special nerve centres, endowed with different functions.

It will be remembered in fact that, under the influence of certain poisonous agents, death is not simultaneous throughout all parts of the organism. What ceases first are the voluntary movements of the large



cilia; the movements of the small cilia are able to persist much longer; and finally, when all the cilia have become immobile and rigid, the vesicle has still been seen to pulsate for an hour. This gradual death recalls what we remark among the Vertebrates; under the influence of poisonous agents, the brain dies first, then follows the marrow, and lastly the bulb, which is the *ultimum moriens*.

(To be continued.)

#### REMINISCENCES OF MR. ALCOTT'S CONVERSATIONS.

BY MRS. EDNAH D. CHENEY.

PART II.

The different way in which he and Mr. Parker regarded Jesus's severe denunciations of the Scribes and Pharisees was characteristic. Mr. Alcott thought they were spoken with such divine serenity that nobody's feelings were hurt, but Mr. Parker said, "No man uttered those words without his pulse running up to a hundred and twenty, and his heart beating as if it would burst out of his bosom."

A witty lady once said Mr. Alcott was "so much of a lamb, he was a little bit of a sheep;" but he had weapons of defence, wit, sarcasm, and irony, which he could use on occasion.

A lady once saying to him, "Mr. Alcott, why have you not come to see me, as you ought to have done?" he replied, "There are many oughts, some of them quite as important as Mrs. —."

To a person who was very much troubled about the Free Love movements, saying, "I ought to do something about them. What shall I do? I wish some one would tell me what to do," he quietly replied, "Meantime, there is Providence."

It is easy to understand that it is far more possible to give such salient exceptions to the usual tenor of the conversation, than any idea of the real height and depth of his thought; you must seek for that in his writings and in the noble criticism of his philosophy we shall have from the one, I may almost say, alone able to give it to us.

While Mr. Alcott's only means of earning money at this time was from these conversations, it was very hard for him to make a pecuniary bargain for them, and he was so unskillful in money matters that one year, in making out his circular, he had put the price of single tickets so low that it was cheaper to buy them all than a ticket for the course. He was very generous in giving free tickets to those who desired them, even to those who added nothing to the pleasure of the company. I remember one woman, somewhat crazed in mind, who occasionally threw the company into convulsions of laughter by her ill-timed remarks, but whom he bore with patiently, always giving her free tickets and escorting her down to the North End after the conversation was over, because he did not think it safe for her to go alone.

With all his seeming impracticality, Mr. Alcott was not slipshod in his arrangements. He loved thoroughness, good form, good manners. He was never unpunctual either in opening or closing the conversation. He respected his audience and treated them with justice.

The greatest advantage gained from the Town and Country Club established about this time was, that it gave Mr. Alcott a large room in which to hold conversations, and as he thus had no expense for rent, he indulged himself in inviting the company to take tickets, I am not quite sure whether without pay or not. There were to be four conversations, and it was hoped that none would be present but those who felt real interest in him, and who would not be liable to misunderstand him. It hardly proved so, however, for his abounding generosity would not allow him to refuse a ticket to any one who wished it, and as Mr. Emerson's name was joined in the invitation, many wished to attend from curiosity or a very superficial interest. The room was generally crowded. Miss Bremer was once or twice among the guests, very much delighted, but not quite agreeing with his theories. Mr. Emerson came and kept his promise to speak, although with painful effort as he shrank from extemporaneous speech. Among others was a Jewish gentleman who objected to everything other people believed in and who annoyed Mr. Alcott more than I ever saw any one else do. "That raised Lazarus," was his common expression for him. Mr. Sumner was among the guests, and Dr. Elder of Philadelphia. I think it was this winter that Mr. Lowell was occasionally present, and tried to catch Mr. Alcott in some of his theories, but his good genius usually saved him.

In 1851, Mr. Alcott managed his conversations in a novel way, which brought out his rare power of appreciating and delineating character. He proposed a series of seven conversations of Representative men, most of them living and all of our own times.

He first spoke of the true American type as not having yet appeared, and introduced Daniel Webster as not a representative American, not combining all the races which are going to form the new type. He said, "Nature meant to make a noble man, she built the forehead nobly, but the backhead is too powerful even for that, and the crown is wanting. She put in four or five Romans, two or three Saxons, but not the Hebrew. On the plane of the memory and understanding he is great, he deals wisely with affairs, with coarse material interests, but not in the imagination, not in the pure reason, not in the conscience. We do not go to Webster for metaphysics. No mother would ask him how to educate her child."

Mr. Alcott drew a comparison between Webster and Cromwell and added that Webster "lacked the



feminine. He was old too early, and without the feminine we can have no true manhood."

"Not until we get the feminine element in Congress, whether in a man or a woman, shall we have the right spirit there."

He spoke of him as a conservative. "There is," he said, "a true conservatism, but in the popular sense, the conservative is a man behind himself, and behind his times. He is a demonic man." Probably, Webster was the best type of what Mr. Alcott really meant by the Demonic Man. He said also "that the characteristic of the great men of the last century, from Goethe to Webster, had been this duplicity, this divided nature. We see it in Byron, in Coleridge—eminently in Carlyle. Coleridge did not sin as Webster, but he was also guilty of that which prevented his doing the things he was capable of doing. The serene single man is yet wanting."

Mr. Garrison represented the Liberal on the second evening, and the conversation was carried on more by others than usual. Mr. Alcott spoke of the Liberator, as Mr. Garrison's diary and best exponent, and of its value as History. In my abstract I have said that I fear I have not fully presented the broad and ample justice Mr. Alcott did to Mr. Garrison. Theodore Parker was the third topic, and Mr. Alcott called him the representative of "popular rights." "He is a great Saxon, with perhaps a little of the Roman. He speaks a thing because it is so, not because he will have it so. We have said all when we have called him 'a man.' Books and libraries serve him, he serves humanity."

"If Mr. Parker is not our priest, he indicates him. He is the silence of the priest, greater than his speech. He moves us not by words alone, but by his port, manner, disposition. There is a soul alive deified in him. He is pre-eminently gifted to operate on the people's heart."

Even in re-reading my poor abstract, I am very much struck with the genial appreciation which Mr. Alcott showed of one so unlike himself. Mr. Parker did not quite suit his imagination, but his heart and conscience responded to him.

Mr. Wm. Henry Channing was the subject of the next discussion. Of him Mr. Alcott said, "He partakes more largely of the fluid element, he is liberated and freed and is an enthusiast. Mr. Channing has not a great imagination, but a lively fancy. As Mr. Parker represents Rights, he represents Love." In answer to a question as to Mr. Channing's failure, Mr. Alcott said, "That is failure when a man's idea ruins him, when he is dwarfed and killed by it, but when he is ever-growing by it, ever true to it, and does not lose it by any partial or immediate failures—that is success whatever it seems to the world." Again, he said, "True discrimina-

tion can come only from a genuine love. It is the paint for our canvass-portrait. He only can truly paint the Devil who for the time loves him!"

I am sorry to find my abstracts of the remaining evenings quite incomplete. Of Dr. Wm. Ellery Channing he spoke as among men of sentiment. My impression of the evening is that he hardly accounted for the wide mark which Dr. Channing has made, but he summed up the conversation thus:

"It is character that does the work. We have one man here who knows how to do his work, he hits the nail on the head. It is not the hammer that hits the nail, it is the man that holds it."

Of the discussion of Mr. Emerson, I have unfortunately no record, I was absent from illness, but it was reported to me as very beautiful. Neither have I any abstract of the conversation on Margaret Fuller as the representative of woman, but in a private letter written at the time, I speak of it as a painful disappointment, so that I sat in agony until I resigned the evening as hopelessly lost. It appears to have been taken out of Mr. Alcott's hands. An old-school physician made a disagreeable attack on Harriet K. Hunt and the Medical College, at which all the company were indignant and which she very properly answered:

Those who love poetical justice may be glad to know that this same physician, very high in his profession, from a bitter opponent became a kind advocate and most helpful friend to women physicians.

Mr. Alcott, however, as well as Mr. Higginson, spoke very beautifully of Margaret Fuller, as I have also recorded his doing in private conversation. I am sorry that I have not his words, for it is a popular error to suppose that these two noble souls were not in cordial harmony of feeling, although so different in expression. Mr. Alcott summed up these conversations as a series of seven pictures.

Our first, Mr. Webster, was a colossal bronze statue.

Our second, Mr. Garrison, was a phrenological head illuminated.

Our third, Mr. Parker, was a bold crayon drawing, wanting in some richness of coloring, but still a good crayon sketch—we were pretty well satisfied with it.

Our fourth, Mr. Channing, was a profile.

Our fifth, Margaret Fuller, was only an outline with the features left out and is left on the easel, it is not yet painted.

Our sixth, Mr. Emerson, was a finely cut medalion and when it was done we fell in love with it ourselves.

Our seventh, Dr. Channing, we hoped would be a miniature. It has not been quite perfect, but we guess it is a miniature.

A new course of fifteen lectures was proposed (on



what I have in a letter disrespectfully called the old fellows, by which I presume was meant the philosophers) from Hermes to Goethe.

I think this course was never given. I have no record or remembrance of it.

Beside these public courses Mr. Alcott had occasionally classes of young ladies, to whom he read from the philosophers and poets. Sometimes he required us to write, transposing a poem into prose. Wordsworth's "Intimations of Immortality" was a favorite subject for this exercise. He frequently attended the meetings of a class who were reading Plato and gave them inspiration and help in understanding his works.

I find three hours mentioned as the length of one of these lessons and no weariness is expressed.

In 1849, Mr. Emerson gave a course of lectures in Freeman Place Chapel. Mr. Alcott invited his friends to come to his room in West Street, after the lecture, to meet Mr. Emerson. They were delightful hours of free social converse, with the lecture for a subject of discussion interesting to all. One evening I noted as present, Mr. Alcott, Mr. Emerson, Mr. Lowell, Mrs. Holland, Mrs. Payne, Mr. and Mrs. Whipple, Mr. Gould, Mr. Woodman, Mr. Fernald, Miss Sarah Dana and others. Mr. Parker was usually there, and Miss Peabody.

It is difficult to show by any figures or even any definite statement of theories or principles, the result of all this work of Mr. Alcott's. For myself, I find his influence so inwoven with all my reading and my hearing at that time, so rich in intellectual life, that I cannot refer things very decidedly to his teaching, but the stimulus to thought was very great. Every subject was treated in its highest relations. No personal or party aims crept in to bias the judgment. There was no sneer for enthusiasm, no putting down of the standard in ethics to meet temporary exigencies. For the time as was said of one of the company by a wit, we were like "disembodied intelligences" seeking for pure thought. In looking over old correspondence I find many minds responding to this influence, even those who could not receive it directly, and this I believe was the way in which Mr. Alcott's thought was spread abroad in wider and wider circles until at last many were helped who never knew from whence the first impulse came.

Yet there were those who did not then and never have accepted this teacher. He had to be content with the recognition of the few who were like-minded or receptive, and leave others to study the great problem by other methods. He had his limitations, but they were not rigid bars. He was unique in his special power, and there were enough to translate the music of his thought into the language of the world.

In speaking of his teaching and his relation to children I think these same limitations must be borne in mind. I wish very much that we could have the testimony of those who were his scholars in childhood. I find a great discrepancy in their views, and am constrained to think he had the same power of impressing a few deeply while he could not influence others at all, with children as with grown people. I know of one pupil, that, in the language of her wise aunt, "he opened her mind," and they felt she was a changed being from his instructions, while others will not confess to any benefit and have kept the same indifference through life. I think he regarded the child too abstractly as an angel, and did not always see what was working in the pupil's thought or what was merely an attempt to reflect his suggestions. He could hardly escape this illusion entirely.

How lasting and wide his influence will become, I cannot venture to predict, but unique and beneficent as it was, to those near to him, I cannot think that it will be lost, but will continue to fashion the thoughts and minds of those who find they can breathe in his atmosphere as in their native air.

If the form of conversation to which he committed his thought seem slight and perishable, we must remember that words are as lasting as temples and statues, and are all that the greatest of teachers has left to us.

#### MISCELLANEOUS.

##### MATHEMATICAL DEMONSTRATION OF THE EXISTENCE OF GOD.\*

A STUDY IN LOGIC, BY BARR FERRER.

If we analyze any given effect, we will find that it has been brought about by a series of causes acting one after the other. That is, the cause immediately preceding the effect has been produced by another cause, which in turn has been produced by a third, and so on, thus:—

EFFECT	CAUSE	CAUSE	CAUSE	ETC.
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If the analysis is continued indefinitely, we will obtain a series so long that it is impossible not only to number it, but even to conceive of any number sufficiently great to express the relation between the effect and the most distantly removed cause that we can discover. But as this is an unending series we cannot say that more than two terms are separated by this unassignable quantity. For, if we did, we should at once give a value to one of them, which, even though it could not be expressed in numbers, and be only comparative, would be contrary to the meaning of "unassignable." This can be readily illustrated thus: Suppose our series to be represented by a straight line

A—————B—————C

and let A be the effect whose causes we are examining. Now, if B be a cause removed from A by a number of terms greater than any assignable quantity, it is obvious that there can be no difference between AB and AC, because if there were, then AC would



be greater than AB, which is impossible, since AB itself is greater than any assignable quantity, and there can, therefore, be nothing greater.

Now this term, which we may call B, cannot be located in space or in thought, for if it could we would at once limit it, which is incompatible with the terms that express it; viz., greater than any assignable quantity. From this it may be argued that there is no such term, and that as we cannot even think of it there is no use of speculating on it. But this is no reason at all. There was a time when the fact that the earth is "round like an orange" was deemed both unthinkable and impossible. Yet now every one believes it, and although we ourselves may not be able to comprehend such a series as has been projected, we have no right to assume that it is an absurdity. And further, if we transpose our series into mathematical terms, and find an expression for this cause B, evolved by the law of the series, we are perfectly justified in comparing its mathematical representative with the representative of A, and thus determining what relation, if any, exists between the two terms. And now we have first to discover the law of the series, and then consider only the first term, and that removed from it by an unassignable quantity.

1) These causes viewed from the position of our original effect are each equally important in its production; in other words, the given effect can only be produced by the action of *all* of them; they are, therefore, each equal in value to each other, and if one of them is omitted, a different effect will ensue. This can be shown algebraically. If the series of causes of an effect be represented by the equation

$$v + w + x + y = A$$

then, if one cause is omitted, since we must take the same thing from each member, we obtain

$$v + w + x + y = A - z$$

which is obviously a very different effect from the first one.

But not only are all the causes necessary to bring about the result A, but no one is of greater importance than the other. For, if it were, let us suppose by the quantity  $a$ , we should have, by the simplest rule of algebra, not

$$v + w + x + y + z = A$$

but

$$a + v + w + x + y + z = A + a$$

which is also a different effect from A.

2) Cause is only knowable through effect. Effect is cause manifested. Hence, in order that it be manifest, it is evident that the effect must be contained within it, or otherwise it cannot appear. A parallel case is any number, say 5, which we may say contains 1 and 4, or,

$$5 = 4 + 1$$

or, algebraically,

$$x = y.$$

These, then, are the two characteristics of our series, and we need a mathematical expression for a series whose number of terms is greater than any assignable quantity, and in which (1) each term is equal to each other, and (2) each term, beginning with the first, is included in the term next following.

A multitude of series is at once suggested. The only ones possible are those of powers of a number, and of these only one fulfills the required conditions. It is obvious that the series cannot be

$$a, a^2, a^3, a^4, \dots, a^\infty$$

for unless  $a=1$ , each succeeding term has a greater value than that which precedes it. Neither can it be

$$a, a, a, a, a, \dots, a$$

or

$$a, a^0, a^0, a^0, a^0, \dots, a^0$$

for each term does not contain the preceding. So also the series

cannot be

$$1, 1^{\frac{1}{2}}, 1^{\frac{1}{3}}, 1^{\frac{1}{4}}, \dots, 1^{\frac{1}{\infty}}$$

since Moivre's Theorem, a well-known problem in the Calculus, shows that the roots of unity are not identical:—

$$(\cos x + \sqrt{-1} \sin x)^{\frac{1}{n}} = \cos \frac{x}{n} + \sqrt{-1} \sin \frac{x}{n}$$

Let  $x = m\pi$ , then

$$\left(\pm 1\right)^{\frac{1}{n}} = \cos \frac{m\pi}{n} + \sqrt{-1} \sin \frac{m\pi}{n}$$

substituting the proper value for  $n$  we obtain

$$(1)^{\frac{1}{2}} = \pm 1$$

$$(1)^{\frac{1}{2}} = 1, \frac{1}{2}(-1 \pm \sqrt{-3})$$

$$(1)^{\frac{1}{4}} = \pm 1 \pm \sqrt{-1}$$

and so on.

There is only one other series possible; viz., the series of the integral powers of unity:—

$$1, 1^2, 1^3, 1^4, 1^5, \dots, 1^\infty$$

in which, as in all cases,  $\infty$  is the mathematical symbol for a value greater than any assignable value.

This series fulfills the required conditions perfectly, for each term is equal to each other term,

$$1 = 1^2 = 1^3 = 1^4 = 1^5 = 1^6 = 1^7$$

and, further, each term is included in the preceding one. That is, the effect 1 is included in its cause  $1^2$ , which is included in its cause  $1^3$ , which is itself included in its own cause  $1^4$ , and so on indefinitely.

Now a careful examination of this series itself, without any more mathematics, shows that the Ultimate (= First) Cause is totally different from all other causes.  $1^\infty$  includes all possible powers of unity; i. e., includes all the preceding terms of the series, or all possible causes. And as it includes all causes within itself, it is obviously able of itself to produce all phenomena.

But it can be shown in a much more rigid manner that the First Cause is absolutely different from all other causes. This can be done by the easy problem of evaluating the function

$$\left(1 + \frac{1}{x}\right)^x \text{ when } x = \infty, \text{ for } \left(1 + \frac{1}{x}\right)^x \Big|_{\infty} = 1^\infty$$

Let  $x = \frac{1}{z}$  and denote the function by  $v$ ,

Then  $v = \left(1 + z\right)^{\frac{1}{z}}$ , since when  $x = \infty, z = 0$   
and  $\log v = \log \left(1 + z\right)^{\frac{1}{z}}$  when  $z = 0$

Taking derivatives

$$\log v \Big|_0 = \frac{1}{1+z} \Big|_0 = 1$$

$$\therefore \log \left(1 + \frac{1}{x}\right)^x = 1 \text{ when } x = \infty$$

$$\text{hence } \left(1 + \frac{1}{x}\right)^x = e \text{ when } x = \infty$$

That is,  $1^\infty = e = 2.718281828$ , the base of the Napierian system of Logarithms.

We see at once that we have something of which we have no knowledge, and something very different from what has gone before. Our known causes are all 1; the Ultimate Cause is 2.718281828; they are absolutely, infinitely different. Thus mathematical analysis shows that in the beginning there is a Cause, physically Unknowable, Self-Existent, Omnipotent,—GOD.

There is another conclusion that may be drawn from this reasoning. Force being physical cause, we have a perfect right to substitute the word force for cause in the above analysis. Doing



so, we see that the theory of the conservation of energy is not true; for after any force has undergone changes whose number is unassignable or indefinite, it is increased in strength (or value) in the ratio of 1 to 2.718281828.

This latter proposition explains the theory of evolution, and may, perhaps, point the way for its logical demonstration. The lowest forms of life exhibit little vitality or force, the next higher a little more, and so on, increasing more and more. It has long been a matter of speculation whence came this increase. But the reasoning here explains it, for since force increases with infinite change, an infinite number of changes must have taken place before a new form of life was evolved. At the same time it embraces the comforting assurance that the human intellect, increasing with infinite changes, will comprehend yet broader fields of thought than are now open to its vision.

PHILADELPHIA, 1888.

#### THE FUNCTION OF ZERO IN MATHEMATICS.

The mathematical study, published above and offered by Mr. Barr Ferree "as a curiosity in Logic," is like many serious ontological proofs for the existence of God; it is a trick of *legerdemain* in reasoning. Mr. Ferree undertakes to prove that in the infinite series of effects and causes the ultimate term differs from the other terms. The first cause,  $1^\infty$ , it is maintained, is totally different from all other causes. This is apparently incorrect, for  $1^\infty$  (i. e., one taken infinite times) is one just as much as one taken once, or one taken to any imaginable power. We have no objection to comparing the concatenation of causes and effects to an infinite series of

$$1, 1^2, 1^3, 1^4, \dots, 1^\infty$$

so as to indicate that in all causal changes the sum total of potential and kinetic energy always remains the same, just as much as

$$1^\infty = 1 = 1^x = 1^3 \text{ etc.}$$

As regards the calculation of the function

$$\left(1 + \frac{1}{x}\right)^x \text{ where } x = \infty$$

we must object to the very first assumption which makes the function  $= 1^\infty$ .  $\frac{1}{\infty}$  is infinitely small. But we must be careful when using functions of 0 and  $\infty$ , always to take into consideration how they originated. In most cases  $\frac{1}{\infty}$  is equivalent to zero; yet it can not under all circumstances take its place. The present example is an instance, as will be seen on expanding the function  $\left(1 + \frac{1}{\infty}\right)^\infty$ . The value of the function  $(1 + 0)^\infty$  will be seen not to be  $= 1^\infty$ , as Mr. Ferree assumes.

The evaluation, being wrong at the start, naturally ends with a contradictory statement

$$1^\infty = e = 2.718281828,$$

We know that  $1^\infty = 1$  and can never be the base of the Napierian system of logarithms. It goes without saying that the substitution of the word "force" for "cause" in the above analysis is likewise not allowable.

Aside from these errors, Mr. Ferree's mathematical demonstration of what he calls God, viz. a demonstration of something absolutely different from other things, of a term in an infinite series that is essentially different from the other terms, of a cause that is not like other causes, of a number that is no number, and yet wondrously affects all numbers—this demonstration is fundamentally based on the idea of nothingness. Nothing is absolutely different from something. This is a logical statement which is undeniable, and translated into mathematical language, it means "zero (or nought) is a number which is essentially different from all the other numbers."

The functions of zero become indefinite and are therefore un-

reliable in calculations. As a consequence of Mr. Ferree's line of reasoning, God would be not only the infinite but as such also the indefinite; and the latter in mathematics is a function that cannot be trusted, because it leads into errors and wrong statements.

With the assistance of Nothingness in logic and of Zero in mathematics we can perform all kinds of mental somersaults, we can work miracles and make anything out of everything. You wish to prove for the benefit of the trinitarian doctrine that  $3 = 1$ . You can do it with the assistance of 0. Multiply the equation with  $0 = 0$  and you have  $3 \cdot 0 = 1 \cdot 0$ . Which is a correct equation for both its members are  $= 0$ . Or, you wish to prove that horses have three tails. This is demonstrable by stating that

No horse has two tails and

One horse has one tail more than no horse

*Ergo* one horse has three tails.

Here, it is at once obvious, the negative term "no horse" is used in two different meanings.

These mental somersaults grow more complicated if, in the place of zero, functions of zero are employed. Infinity for instance is "One divided by zero."

$$\infty = \frac{1}{0}$$

If infinity is no more thought of as a function of zero, but treated as any other number, it can be used as a conjuror's wand which will square the circle and afford mathematical proofs for any impossibility.

EDITOR.

#### BOOK REVIEWS.

The Truth Seeker Company, of 28 Lafayette Place, New York City, have just issued a short sketch of the French Revolution by W. S. Bell, entitled *An Outline of the French Revolution: Its Causes and Results*. The publication is in pamphlet form, and affords a brief but comprehensive view of the period it treats.

ADELAIDE RISTORI, *Famous Women Series*. Boston: Roberts Bros.

This is a charming autobiography, written with great candor and simplicity, and forms a unique addition to a series of works that has won deserved praise. Mme. Ristori gives us a complete story of her life from the time of her first appearance on the stage at the age of three months. The chapters relating her first trip abroad and visit to France where she was brought into direct competition with the artist Rachel are remarkably well told and full of interest.

C. P. W.

NEGRO MYTHS FROM THE GEORGIA COAST. Told in the Vernacular. By Charles C. Jones, Jr., LL. D. Boston and New York: 1888. Houghton, Mifflin & Company.

This little work, with its odd conceits and homely wisdom, its sententious notes and quaint thoughts, cannot fail to interest a multitude of readers. The merit and significance of this collection of Negro Myths has been fully discussed and analyzed by Mr. L. J. Vance, in Nos. 42, 44, and 46 of THE OPEN COURT, to which we refer our readers. The Negro Dialect gives the book its distinctive charm; it is easily mastered, however, and its humor becomes at once enjoyable.

The *Art Amateur* for August is a little ahead of its season, with its colored print of golden rod and Autumn leaves, which remind us that the short vacation time is rapidly passing away, and that the bracing airs of Autumn will soon call us to the front to take part in the busy work or active fight of the world. The summer has been ill spent which does not leave us the fresher and stronger for our tasks, be they what they will. There is no dog-day languor about "My Note Book" which is full as ever of lively gossip about artists and traders in art. It is humiliating to hear that Artists have their tricks of the trade, in duplicating and forging their own pictures to increase the sale, but picture-makers



are but men, and where they work only for money, why should they be more scrupulous than others about the means of obtaining it? We are proud of those who have shown themselves to be artists in soul as well as by profession, by protesting against that narrow policy mis-called protection, which would place a tax on the true means of generous emulation and efforts for improvement. How long must the enlightened States of America be classed with Hawaii and Corea and Honduras and New Zealand who tax foreign pictures by the pound or the penny worth. Art can be expected to be nothing but manufacture or merchandise where it is so held by the rulers of the people. The *Atelier* is specially rich this month both in its essay on Landscape Painting, well illustrated, and in its directions for decorative work. One article on Dogs is accompanied by many vivid sketches of these intelligent and very individual animals, while another called "A Talk with Mr. James Beard on the Painting of Dogs," is more than technical and shows the young student how he must observe them in order to catch their expression and action. In response to questions in regard to the Photo-Engraving processes, the editor says "An article or a series of articles, practical and well written, on these subjects would be accepted by the *Art Amateur* and paid for." Surely there must be those competent to write such articles which would be very welcome to readers. The value and applications of these processes are important practical questions to many who need to reproduce photographs on other works of art. E. D. C.

In the sonnets of Mr. Belrose published in *THE OPEN COURT* of May 17, and August 2, of the present volume, a mistake was made by the printers in the arrangement of the lines. The position should have been according to the rhyme, which was not between alternate lines, as the form in which the sonnets were printed indicated.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXI.—Continued.

The Prince plunged his spoon into the mess, took out some of the half-made butter, and spread it on his white bread with a feeling of satisfaction that was quite new to him. "It tastes a little sour, Krüger," he said.

"Of course," replied Krüger; "the butter-milk is still in it."

"It does not matter," said the Prince, consoling himself. "Krüger, I did not think there was so much to be attended to in churning."

"Yes, all things are difficult in the beginning," replied Krüger, cheerfully.

"It is all right," concluded the Prince, graciously; "take the machine out, and clean it properly."

After that the churn stood peacefully under the silk cloth; the Prince in his lonely hours, would sometimes stand before it, and revolve in his mind how he could deliver it into the hands of the person for whom he had secretly intended it.

The stars themselves appeared to favor him; for the revolving earth had rolled into the last sign of the zodiac, which guides the souls of our people with

magic power to the most charming festival of the year. Christmas was near, and the ladies of the street near the Park moved about in secret activity. Intercourse with intimate acquaintances was interrupted, books that had been begun were laid aside, theatres and concert-rooms were empty; the tones of the piano-forte and of new bravuras rarely sounded to the rattling of carriage-wheels in the street; inward struggles were hushed, and bad neighbors little thought of. From morning to evening, little fingers were occupied with beads, wools, silk, paint-brush and palette; the day lengthened into eight-and-forty hours; even during the minutes of unquiet morning slumber, obliging crickets and other invisible spirits worked in the pay of the ladies. The nearer the festival approached, the more numerous were the secrets: in every closet were concealed things which no one was to see; from all sides, packages were brought into the house, that were forbidden to be touched. But whilst the other inmates of the house secretly slipped past one another, the lady of the house was the quiet ruler in the invisible realm of presents, and the confidant and clever adviser of all. She was never weary; she thought and arranged for every one; the world had become to her like a great cupboard with numerous compartments, from which she was incessantly fetching things, and in which she was always cautiously stowing covered packages. When on Christmas Eve the spangled stars shine, the wax-lights drip, and the golden balls glimmer and glisten on the Christmas tree, it is then that the fancies of the children celebrate their great day; but the poetic vision of the housewife and her daughters, for months before, have filled the room with joyful splendor.

If one may regard the judgment of Mr. Hummel as valid, it is rarely that the enthusiasm of Christmas week is fully developed in the men who have the honor of being the representatives of the family. "Believe me, Gabriel," said Mr. Hummel, one December evening, as he was watching some children who were passing by with toys, "at this time man loses his importance; he is nothing but a money-chest, in which the key is turning from morning till evening; the best wives become barefaced and foolish, all family confidence vanishes, everybody avoids everybody else, the order of the house is disturbed, one's night's rest is unscrupulously destroyed; when it is meal time, one's wife runs to the market, and when the lamps ought to be extinguished, one's daughter begins a new piece of embroidery. When at last the long bother is over, then one must be delighted at a pair of new slippers which are an inch too short, and for which later on one has to pay a long shoemaker's bill, and to be pleased with a cigar case of beads, which is flat and hard, like a dried flounder. Finally, after one has

\* Translation copyrighted.



shot out golden sparks like a rocket, the ladies expect one to show one's good feeling by making them a present. Now, I have trained mine differently."

"But I have seen you yourself," rejoined Gabriel, "with a package and bandbox under your arm."

"That is true," replied Mr. Hummel, "a bandbox is inevitable. But, Gabriel, I have given up all worry; for that was the most humiliating part of the affair. I go every year to the same milliner now, and say, 'a hood for Madame Hummel;' and the person says, 'You shall be served, Mr. Hummel;' and she places the structure ready made before me. Besides this, I go every year to the same shop and say, 'I want a dress for my daughter Laura, at such and such a price, more or less,' and a dress well worth its value is placed before me. In confidence, I must tell you I have a suspicion that the women have seen through my trick, and select the things themselves beforehand, for now they are always very much to their taste, whilst in former years they were often objected to. They have the trouble now of selecting the finery, and in the evening they practice all sorts of dissembling artifices, unfold and examine the goods, pretend to be astonished, and praise my excellent taste. This is my only satisfaction in the whole childish amusement. But it is a poor one, Gabriel."

Such was the discordant strain in which the master of the house indulged; but the dwellers in Park Street cared little for it, and like opinions will always be regarded with like indifference. So much sweeter is it to care for others than for one's self, and so much happier to give pleasure than to receive it.

For Ilse also the festival this year was to be a great event; she collected like a bee, and not only for the dear ones at home; in the city also she had nestled many great and little children in her heart, from the five young Raschke's down to the little barefooted creatures with the soup-pot. The sofa-corners assumed a mysterious appearance whenever her husband, or Laura, or the Doctor entered unexpectedly.

When the Chamberlain, some time before the holidays, deemed it becoming for his Prince to pay a visit to the new Rector, the gentlemen found Ilse and Laura busily at work, and the parlor of the Rector's wife was changed into a great market stall. On a long table stood little Christmas trees, and full sacks were leaning against the legs of the table; the ladies were working with yard-measures and scissors, dividing great hanks of wool, and unrolling pieces of linen, like shop keepers. When Ilse met the gentlemen and made excuses for the state of her room, the Chamberlain entreated her not to disturb herself. "We will remain here only if we are allowed to make ourselves useful." The Prince also said, "I beg permission to help, if you have anything for me to do."

"That is very kind," replied Ilse, "there is still much to be done before evening. Permit me, your Highness, to give you your work. Pray take the bag of nuts; and you, my Lord Chamberlain, have the goodness to take the apples in charge; you, Felix, will have the gingerbread. I beg the gentlemen to make little heaps, to each twenty nuts, six apples, and a package of gingerbread."

The gentlemen went zealously to work. The Prince counted the nuts conscientiously, and was provoked that they would always roll together again, but discovered that he could keep the portions apart by means of strips of paper folded together. The gentlemen laughed, and related how once, in a foreign country, they had introduced this German Christmas amusement. The perfume of the apples and of the fir-trees filled the room, and gave a festive feeling to the souls of all present.

"May we ask the kind lady who are to benefit by our exertions?" said the Chamberlain; "I hold here an uncommonly large apple, which I hope may fall to the lot of one of your favorites. At all events, we are doing what will give the poor children pleasure."

"Finally it will," replied Ilse; "but that is not all; we shall give this to their mothers, for the greatest pleasure of a mother is to give presents herself to her children, to adorn the Christmas tree and to work what the little ones need. This pleasure we shall not deprive them of, and therefore we send them the stuff unmade. The Christmas trees, too, they prefer buying themselves, each according to their tastes; those you see here are only for children who have no mothers. These trees will be adorned by us. Everything for the festive evening will be carried out of the house to-day, so that the people may receive them in good time, and arrange them for themselves."

The Prince looked at the Chamberlain. "Will you allow us," he began, hesitatingly, "to contribute something towards these presents?"

"Very willingly," replied Ilse, joyfully. "If your Highness wishes it, our servant can look after it immediately. He understands it, and is trustworthy."

"I should like to go with him myself," said the Prince. The Chamberlain listened with astonishment to this idea of his young master; but, as it was laudable and not against instructions, he only smiled respectfully. Gabriel was called. The Prince, much pleased, took his hat. "What shall we buy?" he asked eagerly.

"We want some little tapers," replied Ilse, "besides some playthings;—for the boys, leaden soldiers; and for the girls, little kitchen things; but all must be strong and cheap." Gabriel followed the Prince out of the house with a large basket.



"You heard what the lady ordered," said the Prince, in the street, to Gabriel. "First the waxes; you do the selecting and I will pay. We are to buy them cheap; see that we are not cheated."

"We need not fear that, your Highness," replied Gabriel; "and if we should pay a few pennies too much, other children will benefit by it."

At the end of an hour the Prince returned. Gabriel had a heavily-laden basket, while the Prince also carried under his arms bundles of toys and large paper bags full of sweetmeats. When the young gentleman entered thus loaded, with color in his cheeks and as happy as a child, he looked so good and pleasing that all were delighted with him. He unpacked his treasures before the Professor's wife, and emptied the contents of the paper bags on the table.

His embarrassment had disappeared: he played with childish pleasure with the pretty things, showed the others the artistic work in the marchpane plums, begged of Laura to keep a candy knight-templar for herself, and moved about and arranged everything so gracefully and actively on the table that all looked at him with admiration and joined in his childish jokes. When the ladies began to adorn the Christmas trees, the Prince declared he would help them. He placed himself before the saucer with white of egg, and was shown the way to lay it upon the fruits and then roll them in gold and silver foil. Ilse arranged as a prize for the gentleman who worked best and did most, a large gingerbread lady with a hooped petticoat and glass eyes; and a praiseworthy contest arose among the gentlemen to produce the best things. The Professor and the Chamberlain knew how to employ their old skill; but the Prince as a novice worked somewhat carelessly—there remained some bare spots, and in others the gold foil bulged out. He was discontented with himself, but Ilse cheered him, saying, "But your Highness must be more sparing with the gold, otherwise we shall not have enough." Finally, the Chamberlain obtained the lady in the hooped dress, and the Prince, as an extra reward for his activity, a babe in swaddling-clothes which looked on the world with two glassy bead eyes.

Out of doors in the Christmas market, little children were standing round the fir-trees and Christmas shops, looking hopefully and longingly at the treasures there. And in Ilse's room the great children were sitting at the table, playful and happy. Here there were no cautious admonitions, and the Prince painted the outlines of a face with the white of egg on the palm of his hand, and gilded it with a gold-foil.

When the Hereditary Prince rose to go, the Professor asked, "May I venture to inquire where your Highness intends to pass Christmas Eve?"

"We remain here," answered the Prince.

"As some remarkable musical performances are in prospect," added the Chamberlain, "his princely Highness has denied himself the pleasure of having the Prince with him at this festival; we are, therefore, to pass a quiet Christmas here."

"We do not venture to invite you," continued the Professor; "but in case your Highness should not pass this evening in other society, it will be a great pleasure if you would do so with us."

Ilse looked thankfully at her husband, and the Prince this time did not leave it to the Chamberlain to answer, but eagerly accepted the invitation. As he walked with his attendant through the crowded streets, he began, cautiously, "But we must contribute something to the Christmas table."

"I had just thought of that," replied the Chamberlain; "but if your Highness honors those worthy people with your company that evening, I am not sure how your Highness's father will approve of a contribution to the Christmas tree from my gracious Prince."

"I do not wish it to be any of those eternal brooches and ear-rings from the court jeweler's cases," cried the Prince, with unwonted energy; "it should be some trifle; best of all, something as a joke."

"That is my view," assented the Chamberlain; "but it is advisable to leave the decision to his Grace, your father."

"Then I had rather remain at home," replied the Prince, bitterly. "I will not enter with some stupid present in my hand. Can it not be managed that the visit be without any ceremony, just as the invitation was?"

The Chamberlain shrugged his shoulders. "A few days afterwards the whole city will know that your Highness has shown Professor Werner this unusual honor. Without doubt the occurrence will be reported to the palace by persons who have no business to do so. Your Highness knows better than I do how your father will receive such an account, coming to him first from a stranger."

The Prince's pleasure was spoilt. "Write, then, to my father," he cried, angrily; "but represent the invitation just as it was given, and express yourself as opposed to any conventional present from the court: it would only wound this family."

The Chamberlain rejoiced in the tact of his young master, and promised to write the letter as he desired. This appeased the Prince, and after a time he began: "It has just occurred to me, Weidegg, what we should give. As the Professor's wife comes from the country, I will present her with the machine which I lately bought, as a case for pretty *bonbons* or something of that kind, that I will put in it."

"Now he wishes to get rid of the useless play-



thing," thought the Chamberlain. "That is impossible," he replied, aloud: "Your Highness is not quite sure whether the lady would take the joke as it is intended. It would not do to give a present which might give rise to misinterpretation. Your Highness should on no account venture upon such a thing. Even if the amiable lady herself did not object, it would be much discussed in her circle. Your Highness's joke might be easily considered as an ironical allusion to country manners, which undoubtedly become the lady well, but might here and there occasion a slight smile."

The Prince's heart froze within him; he was furious with the Chamberlain, and, on the other hand, shocked at the thought of wounding Ilse. The poetry of the festival was entirely spoilt for him. He went silently to his apartment.

The answer to the Chamberlain's letter was to the effect that the Prince, in spite of the apparent unsuitability, would not object to an incidental visit, and that, if some mark of attention was unavoidable, it might be procured from a gardener or confectioner. The Chamberlain, therefore, bought a quantity of flowers and sweetmeats, and laid them before the Prince. But he looked cold and silently on the gay bright colors. Towards evening two lackeys carried the things to the Rector with a little note from the Chamberlain, in which, in the name of his Most Serene Prince, he begged the accompanying gift might be applied to the ornamenting of the Christmas tree. Meanwhile the Prince stood gloomily before his butter-machine, and quarrelled bitterly with his princely dignity.

When at the proper hour he entered Werner's apartment, the Christmas gifts had been distributed and the candles extinguished. Ilse had done it purposely. "It is not necessary to let these strangers see what delight we take in these presents." The Prince received Ilse's thanks for the splendid adornment of her table with reserve, and sat before the tea-kettle silent and absent-minded. Ilse thought, "He is sorry that he has had no glad Christmas Eve: the poorest child is merry with his Christmas tree, and he sits as if shut out from the pleasures of this happy time." She made a sign to Laura, and said to the Prince: "Would your Highness like to see our Christmas tree? The lights had to be extinguished lest they should burn down, but if your Highness likes we will light it up again in all its splendor, and it would be very kind of your Highness to help us."

This was a welcome proposal to the Prince, and he went with the ladies into the festive room. There he offered to take the staff, at the end of which a wax-taper was fastened, in order to reach the highest lights of the mighty tree. Whilst he was thus busily working at the tree his heart became lighter, and he

looked with interest at the presents which were lying under the tree.

"Now will your Highness have the kindness to go out of the room," said Ilse, "and when I ring it will signify to you and Mr. von Weidegg that your Highness is wanted."

The Prince hastened out; the bell rang. When the gentlemen entered they found two small tables laid out; on them small lighted trees, and under each a large dish of pastry, made after the fashion of their own country. "This is to be a remembrance of our home," said Ilse, "and on the trees are the apples and nuts which you have gilded: those with the red spots are your Highness's work. Here is a respectful gift sent from the farm of my dear father. I beg the gentlemen to eat this smoked goose's breast with a good appetite; we are not a little proud of this dish. But here, my gracious Prince, there is, as a keepsake from me, a small model of our churn; for this is at what I served my apprenticeship as a child." On the Prince's seat stood this useful instrument, made of march-pane. "On the bottom of it, your Highness, I have written my motto of long ago. May the gentlemen accept my good intentions!"

She said this so joyously, and offered her hand to the Chamberlain so kindly, that all thoughts of his dignity were forgotten, and he shook her hand right honestly. The Prince stood before his machine, and thought: "Now is the moment, or never." He read below the simple words, "If a person has devoted himself with honest perseverance to some one thing, it will be a blessing to him throughout his whole life." Then, without any thought of the threatening consequences of his daring, he said: "May I propose an exchange to you? I have bought a small churn; it has a large wheel and a small one for turning, and one can churn as much as one wants each morning. It would be a great pleasure to me if you would accept this."

Ilse thanked him with a bow; and the Prince requested that a servant might at once be sent to his apartment for it. Whilst the Chamberlain was still reflecting with amazement on the strange coincidence, the piece of mechanism was brought into the room. The Prince placed it with his own hands upon a corner of the table, explained the internal arrangements to the company, and was much delighted when Ilse said she had confidence in the invention. He was again the joyous child of the other day, gaily drank his glass of wine, and, with charming grace, proposed the health of the master and mistress of the house, so that the Chamberlain scarcely knew his Telemachus again. On taking leave, he himself packed up the marchpane and carried it home in his pocket.

(To be continued.)



WILLIAM J. POTTER.

In the leading essay of No. 1, Mr. Potter discusses the question of the relation of individual existence to the aggregating power and well being of society. Nature in this matter should be our teacher, and the spiral world-plan of nature is the method of differentiation. It is a process of concentrating the forces of existence which is done through the process of self-preservation. This principle of selfishness means only, not an end. Without it there would be stagnation, but the individual organism does not exist for its own sake. Nature's aim is higher, broader, richer life. The end of individual existence is the common good, the general well-being, and here is where the law of ethics and the obligations of religion bear upon social problems. Individual self-interest and enterprise only furnish the rough materials for the meliorations which mark the progress of the higher civilization.

ERNST MACH.

Ernst Mach (Professor of Mechanics at the University of Prague, author of several works explanatory of the history and philosophy of mechanics, and the first authority in his branch) explains in his essay *Transformation and Adaptation in Scientific Thought*, (in Nos. 46 and 48), one of the most characteristic ideas of modern science—an idea that lies, so to speak, in the atmosphere. "Knowledge," he says, "is an expression of organic nature." The law of evolution, which is that of transformation and adaptation, applies to thoughts just as well as to individuals or any living organisms. A conflict between our customary train of thought and new events produces what is called the problem. By a subsequent adaptation of our thought to the enlarged field of observation the problem disappears and through this extension of our sphere of experience the growth of thought is possible. Thus the happiest ideas do not fall from heaven, they spring rather from notions already existing. From this standpoint the narrow conception of egotistic views disappears. "The person" is comparable to an indifferent and symbolical thread on which are strung the real pearls of life—the ideas that make up the changing content of consciousness. Humanity in its entirety is like a polyp plant; the material and organic bonds of union have been severed, but by this freedom of movement, the psychical connection of the whole has been attained in a much higher degree.

MONCURE D. CONWAY, on Agnosticism, in No. 47.

Mr. Moncure D. Conway, in reference to the philosophical exposure of Agnosticism in the editorial article of Nos. 43 and 44 of THE OPEN COURT, declares that the Unknowable cannot in the least concern the religious nature. Only weariness of wing can have brought free thinkers to seek rest on this raft. Religion does not follow abstract and vague gods, it follows Jesus, Buddha, Mary, who may be known and loved. On the truth and moral value of these great figures, man can base his life. Mr. Conway concludes with the remark that the ethical side of monism has not as yet been made clear. Nature seems predatory and cruelly impartial between good and evil. Adherents of error survive more comfortably and increase more extensively than the disciples of truth. May it not be more truly said that there is a moral law in man to which nature must conform in order to be elevated and transfigured to a nobler existence? Mr. Conway's critical remark if it were unanswerable from the standpoint of Monism would drive religion and philosophy back into the dualism and supernaturalism of former times. And truly the supernatural, if it is justifiable at all, must be recognized in the moral nature of man, unless man is proven to be a part of nature. The editor's answer to Mr. Conway's criticism, in the same number, expatiates on the Oneness of Man and Nature, thus showing that humanity, culture and civilization are but a higher stage of the natural, and that morality does not stand in contradiction to, but is an observance of and a conforming to the cosmical order of the All.

W. D. GUNNING.

Mr. W. D. Gunning's essay *Katzenjammer*, in No. 1, is a sprightly, half humorous, half serious lay sermon, sending shafts of light into the dark recesses of the mind. Katzenjammer is a German word, which means cat-sickness, and denotes a malady of body and mind which results from night-life. The owl, the night-hawk, the whip-poor-will and all the felines are night-prowlers. Men also have gone astray with the cats and become nocturnal; even Socrates, with all his virtues was somewhat addicted to Katzenjammer. Katzenjammer was a large factor in the decline of Athens and the chief factor in the fall of Rome. What a Katzenjammer-band was that of Cataline! What Katzenjammer was that of Nero fiddling in the light of burning Rome! Struggle for life drove one member of a certain family higher into the air, and another into the ground. The sun-seeker gained in eye and brain, the earth-burrower lost its eyes and retained only brain enough to guide it through the ground. Such are the fates of the mole and the bat. Igrasil the tree of life has been pushing its human fruit inward to the shade. We want a peripheral humanity lit by beams of science and sweetened and mellowed by active rays of the sun of righteousness.

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An editorial discussion of the Field-Ingersoll Controversy and of Mr. Gladstone's Remarks upon the same will be found in Nos. 43 and 44. The questions and issues involved are treated from an independent and impartial standpoint. The inefficiency of Agnosticism to approach a solution of the religious problem is shown; Agnosticism being but a negative view of the world. The true position and significance of both parties in the development of the religious idea are pointed out and each is recognized as important and necessary to the ultimate synthesis of religious truth, a religion which will in clude what is good in all.

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W. M. SALTER.....In No. 45.

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The Science of the thousand-fold *moral effects of physical causes* is still a sealed book to a large plurality of our fellow-men. The ethics we have inherited is biased by the tenets of an anti-physical and anti-natural philosophy, and the tendency of the latter has ever been to sanction and exaggerate the *physical effects of moral causes*. Dr. Oswald says: "Our entire system of moral education needs a thorough revision, and the success of urgent social and ethical reforms depends on the radical reconstruction of moral philosophy on a basis of natural science." The subject is treated in the graphic manner which has ever characterized Dr. Oswald's contributions to the Literature of Natural History and Anthropology. It is marked by the usual wealth of illustration and abounds in felicitous and pertinent citations of historical and natural evidence.

#### ORIGIN OF REASON.

LUDWIG NOIRÉ. .... In No. 33.

An essay of great importance; will greatly help to explain the views of Max Müller. The same number contains an editorial upon Monism and Philosophy, in which is discussed the Identity of Language and Thought, the theories of Noire and Müller, and the proof with which modern philosophy has corroborated the monistic conception.

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## RECENT CONTRIBUTIONS TO "THE OPEN COURT."

EDWARD, C. HEGELER

In No. 15, Mr. E. C. Hegeler explains his view of the soul. The soul, he says, is the form of a very complicated, self-acting mechanism of living substance; a part of its activity is accompanied with feeling; the feelings correspond in *form* to the most essential parts of the mechanism. The soul, as expressed by Bock, enters into our brain through the gateway of the senses. Reason is formed through the instrumentality of language. Noiré says: "Man thinks because he speaks." Immortality does not only mean the indestructibility of matter and energy but *soul preservation*. It implies not only continuance of life, but life in a special form. We can to a great extent renew ourselves by forming our soul in the growing generations through education and by example. To preserve and to elevate the *quality* of the human soul, that is the basis of ethics.

Pleasure and pain in the higher man of the future will, in quantity, probably be proportioned as now, but their form, their quality, will change \* \* \* Whether life is worth living is not the question of ethics, it is beyond our control. If civilized life does not continue, savage life, or even the life of brutes, will take its

place. As long as the sun shines upon our earth under similar conditions as now, so long the same quantity of life will continue upon its surface.

GEORG VON GIZYCKI.

In Nos. 25 and 26 is presented a very scientific article entitled "Determinism versus Indeterminism," by Georg Von Gizycki, Professor of Philosophy at the University of Berlin. This is in answer to Professor William James of Harvard University, who, in a lecture published in the *Umlarian Review*, had maintained the doctrine of *indeterminism*. The whole inquiry relates to the Freedom of the Will, and the terms are thus explained:

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The argument, which is deeply philosophical throughout, and in some parts of it a demonstration, proceeds upon the theory that the human will is under the control of law, and that its actions are *determined* by necessity; that Freedom of the Will is never an accident, nor the offspring of caprice; that the reformation of an evil-doer is made by surrounding him with conditions whose laws will compel his will to act in the right way.

EWALD HERING.

Nos. 22 and 3 contain a very eloquent article on "The Specific Energies of the Nervous System," by Dr. Ewald Hering, Professor of Physiology at the University of Prague. His useful additions to physiological science are enumerated in the *Encyclopædia Britannica*, under the heading of "Physiology." Several pages of the *Encyclopædia* are devoted to Dr. Hering. His discoveries make an era in physiological study, and we remind our readers of his learned and instructive essay on "Mem.ory," published in Nos. 6 and 7 of THE OPEN COURT.

Dr. Hering's article on the "Specific Energies of the Nervous System," while profound in argument and full of information in its details, is at the same time so simple in statement and so easily understood that the reading of it is a pleasure as well as a study. Such articles enable us to see farther into Nature than we formerly did, and they reveal to us that her "specific" work is much of it so delicate and fine that the most powerful microscope cannot make it visible to the material eye of man. Throughout the essay the following proposition is maintained: "The germs of each animal species possess an inherent and innate faculty, viz: a *specific energy* which directs its development in a manner characteristic to this animal and no other. Again, each single germ possesses an individual energy which, in addition to the normal features of its species, secures an individual character to its future development."

GEN. M. M. TRUMBULL.

In No. 25 Gen. Trumbull has an article on "The Value of Doubt in the Study of History." He shows the tendency of historic writing toward exaggeration and falsehood; and he advises teachers to strengthen the minds of pupils by the exercise of doubt. Much of the history of the late war as written by our famous generals is as fabulous as the legend of Romulus and Remus. It is written by men interested in their own story, and therefore it comes under the suspicion cast upon it by the ordinary rules of evidence. "This war history," says Gen. Trumbull, "is woven out of camp-fire yarns." "Like the feet of Chinese children," he says, "our minds were crippled in infancy, and many of them have been lame ever since. They are not as useful to us as they would have been if strengthened in infancy by the exercise of doubt."



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## THE PSYCHIC LIFE OF MICRO-ORGANISMS.\*

BY A. BINET.

Translated from the "Revue Philosophique" by *à propos*.

PART III.

*The Organs of Sense.* All the Micro-organisms are endowed with sensibility; some, like the Infusoria, have exceedingly sensitive powers. But, hitherto, organs of sense anatomically differentiated have been found in only a very small number of species. Generally, the protoplasmic expansions which we have above described under the name of pseudopodia are regarded as fulfilling the function of rudimentary organs of touch which advise the micro-organism of the presence of objects which happen in its path; but these pseudopodia, which at the same time serve as motor apparatus, do not exhibit any structure which especially fits them for the reception of sensory impressions. Similarly, Stein considers the vibratile cilia as organs of touch. As these are organs which have not undergone any differentiation, we shall not stop to consider them. The Infusoria belonging to the genus *Cryptochilum* (Maupas) carry at their posterior extremity a long rigid bristle, which M. Maupas regards as an organ of touch, intended to advise the animal of the approach of other Infusoria.

We shall speak more at length of the organ of sight; this has been the subject of numerous treatises, some of which are quite recent and of the greatest interest to general physiology and psychology. Of all the organs of sense the eye is the one which is first differentiated. It is found in the organisms belonging to the vegetable kingdom as well as in those belonging to the animal kingdom. While these small beings do not seem to possess any organ especially adapted by its structure for the reception of tactile, olfactory, or gustatory impressions, a large number already exhibit an ocular spot, that is to say a differentiated organ, for the purpose of sight and for no other purpose.

Let us first turn our attention to the eye of the Protozoa.

It is chiefly in the group of Flagellates, and principally in the species that are colored green by chlorophyll (for example the *Euglenæ*), that ocular spots are found; these spots which are colored a bright red, present themselves very clearly to the observation,

for they are set off by the uncolored plasma of the anterior part of the body where they are generally located. Oculiform spots are also found in the species colored by yellow chlorophyll (*Uroglena volvox*, etc.). Generally, there is only one spot, situated at the base of the flagellum. This is seen especially in the *Euglena viridis*, a small flagellate infusory, which is very abundant in fresh waters, which it often covers with a thick green coating.

In the *Synura nveila*, a colony-forming flagellate, there exist in each individual, in the anterior part of the body, numerous spots, varying from two to ten.

Below we give an illustration representing the anterior extremity of the *Euglena Ehrenbergii*, according to Klebs. A large ocular spot is noticeable, in contiguity with the contractile reservoir. Ehrenberg, deceived by the appearance of these two organs, had taken the contractile reservoir for a nerve ganglion.

It is not only in the large group of Protozoans that the red spots are met with; they are found also among the vegetable Micro-organisms. A large number of green-colored zoospores exhibit at the anterior, and usually colorless, extremity of their bodies, a small red point which seems to have exactly the

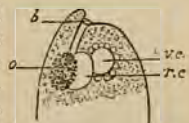


Fig. 6.—Anterior extremity of the *Euglena Ehrenbergii* (after Klebs). *a* = Eye. *b* = Mouth and gullet. *c* = Contractile vesicle. *r* = Contractile reservoir.

same structure as the red spot of the *Euglenæ*. It was on this fact that Stein based his opinion that the spot of *Euglena* is not an eye; to him it seemed impossible to admit that the vegetable Proto-organisms could possess a visual organ. This is an excellent instance of *a priori* reasoning. Later on we shall see that Stein's view has now been completely abandoned; the very opposite view is taken, for the eye of the Protista is considered as being destined to perform chiefly a vegetable function.

Klebs was able to study the structure of the ocular spots, by employing a very ingenious artifice. When the *Euglenæ* are treated with a solution of sea salt, in the proportion of one part to one hundred, an enormous dilatation of the contractile vesicle, which forms a hollow in the protoplasm of the animal, is induced; now, as the red spot is, so to speak, glued to the vesicle, it undergoes the same dilatation as the latter does,

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thus greatly facilitating observation. By this treatment it has been observed that the spot is a small discoid or triangular mass, of jagged and irregular outline; it is formed of two material parts; for a base it has a small mass of reticulated protoplasm, and in the meshes of the protoplasm there are small drops of an oily substance, colored red.

This red pigment, which has received the name of hematochrome, is not without its analogy with the green pigment of the chlorophyl, because this latter becomes red under certain conditions. For example, the chlorophyl pigment which fills the entire body of the *Hematococcus pluvialis* becomes red, when the animal enters into a state of rest; the stagnant spores of the algæ also assume a red tint. So, also, in numerous plants, the parts of the flower destined to become red are green as long as they are enclosed in the bud. It is thus probable that the red pigment of the Euglenoids is derived from a green pigment.

What is the physiological significance of these spots? Ehrenberg considered them as eyes; hence the name *Euglena* (word for word, pretty eye), which he had given to a species of Flagellates provided with ocular spots. This interpretation had been questioned by all the authors of his time, especially by Dujardin. At the present day, however, naturalists have come back to it, in consequence of observations which have been made on other Micro-organisms that possess a more perfectly developed eye.

M. Pouchet has discovered in the *Glenodinium polyphemus*, which belongs to the group of Peridinia (or Dinoflagellates, according to the classification of Bütschli), an eye about the function of which there can be no mistake.

This eye occupies a fixed place in the cellule of the Peridinium; it has a uniform location and position. It consists of two parts, the one a veritable crystalline humor, and the other a veritable choroid. The crystalline is a strongly refracting, hyalin, club-shaped body, rounded at its free end, which is always directed forwards, while the other end is immersed in the mass of pigment which represents the choroid. This latter is clearly determined; it forms a sort of hemispherical cap, enveloping the posterior extremity of the crystalline. In one of the two forms of *Glenodinium polyphemus*, the choroid pigment is red; in the other it is black.

M. Pouchet has been able to establish that in the young animals the crystalline is first formed of six to eight refracting globes, which are merged into each other in order finally to constitute one unified mass. Also, the choroid is the result of a combination of the pigmentary granules which, at first sparse, group together and finally form the hemispheric cap that covers the posterior extremity of the crystalline.

In fact, the visual organ of this Peridinium is composed of exactly the same parts as the eye of a metazoön with one exception, the absence of the nerve element. This is not at all differentiated, but remains diffused, like the whole nervous system. M. Pouchet calls attention to the interest which his observation affords from a taxonomic point of view. The Peridinia have sometimes been classed among the vegetables; the presence of starch and of cellulose in their protoplasm has induced Warming to classify them among the Diatomaceæ and Desmidiaceæ. It is admitted to-day that certain Peridinia possess an eye, an organ which has hitherto been considered as the exclusive attribute of animals. Nothing more clearly emphasizes the altogether artificial character of the distinction between animals and vegetables than the results of dealing with Micro-organisms.

Before leaving the Peridinia, we would remark that these small beings afford an interesting fact from the point of view of the history of the Protozoa; they are provided with a long flagellum; they exhibit in addition an equatorial line on which formerly a crown of vibratile cilia was thought to be recognizable: this supposed co-existence of a flagellum and of cilia had determined the naturalists to form a group of Cilio-flagellates, serving as a transition between the Flagellates, properly so-called, and the Ciliates. Since then it has been discovered that the Peridinia do not possess vibratile cilia; what had given rise to this error is the presence of a second flagellum on the level of the transverse line which we have just described; the movements of this flagellum have the appearance of vibratile cilia in motion.

Some time before the investigations of M. Pouchet, M. Künstler (of Bordeaux) had discovered, in a Flagellate of the genus *Phacus*, a red eye which is also formed of two parts; it is composed of a homogenous globule, acting as a crystalline humor, and surrounded by a red pigment, acting the part of the choroid.

Before M. Künstler, Claparède and Lachmann, in their important work on Infusoria and Rhizopods, had described a similar visual organ in the *Freia elegans*, a ciliated infusory of the family of Stentorines. "Immediately behind the point of truncation," say they, "there is found a lunate spot of intense black, evidently belonging to the category of those phenomena which M. Ehrenberg, in the *Ophryoglenæ*, for example, calls an eye or an ocular spot. The significance of this spot has never been known. It was often very much denser than that of the *Ophryoglenæ*, and sometimes there was discovered behind it a very transparent corpuscle, which involuntarily gave rise in the mind to the idea of a crystalline humor. We cannot, however, add much of importance to this idea, since the functions of a refracting apparatus must neces-



sarily remain problematic, as long as we do not discover behind it a nervous apparatus fitted to perceive the impressions received."

This last conclusion seems to us excessively cautious. The co-existence of a pigment and of a crystalline humor amply suffices to characterize a visual organ. As to the nerve apparatus susceptible of perceiving impressions, it is replaced by the protoplasm, which, as is well known, is sensitive to light.

Even before that, in 1856, Lieberkühn had discovered in a ciliated infusory, the *Panophrys flavicans*, an ocular spot, composed of a convex crystalline humor, having the form of a watch-crystal enveloped by pigment and placed on the convex side of the oral fosse. In another species, the *Ophryoglena atra*, he found black pigment, but no crystalline humor.

It is impossible to believe that these organs are not eyes, for they have the same structure as the eyes of comparatively higher classes of animals, such as certain worms, turbellaria, rotifers, lower-class crustaceans, etc; all these organs are similarly formed of a small crystalline globule enclosed in a small mass of pigmentary matter. The identity of structure naturally leads to the assumption of the identity of functions.

The eye of the Euglena is the simplest of all; it is even reduced to the maximum point of simplicity, as it is composed of a spot of pigment. What induces us to believe that this spot is a visual organ, is the presence of this pigment. In fact this pigment is found in the most elementary visual organs. A second argument might be advanced; the red pigment of the Euglena exhibits the same re-actions as the coloring matter that fills the rods of the retina in the Vertebrates. From among these re-actions common to both, we cite the decoloration under the influence of light (Capranica).

Whatever the case may be, one thing is certain, namely that the Euglena is very sensitive to the light. When they are kept in a vessel, they are invariably seen to cover the side exposed to the light. M. Engelmann has observed that light acts very strongly upon this small animal; it does not act directly on the spot of pigment, nor, as was formerly thought, on the flagellum, but on the protoplasm which is located in front of the spot. The special micro-spectral object glass that M. Engelmann constructed, enables us to see that the Euglenæ always congregate in the band F to G of the spectrum.

So far as the vegetable Micro-organisms are concerned, we have already mentioned that a large number of the algæ zoöspores exhibit, in the anterior part of their body, ocular spots of a beautiful ruby color: these are organs that probably have the same structure as the red spots of the Eugleniæ. Moreover, it

is probable that certain Microphytes possess more complex visual organs, composed of red pigment and of a crystalline humor. M. Balbiani has recently testified to this fact in the case of the *Pandorina morum*, a spherical colony of green micro-organisms; in each colony there exists a certain number of individuals which possess a red spot, the shape of which is perfectly circular; if this spot be examined under a glass of very high magnifying power, one can readily see that it is formed of a small spherical globule, covered, on a portion of its surface, by a cap of red matter. This observation is all the more interesting because it is made on a being, the vegetable nature of which is to-day no longer doubted; the *Pandorina* are Volvocinæ which modern botanists place among the algæ. (We are glad to give our readers the earliest communication concerning this fact.)

If describing the eye of the Protista, we said that the eye is the only organ of sense which is distinctly differentiated in these lower beings. But, perhaps, this assertion is too sweeping. Some species appear armed with small organs which could easily be invested with a sensory function. In this respect, we may cite the *Loxodes rostrum*, a beautiful ciliated infusory, remarkable for its proboscis and for the muscular sheath which closes its mouth. This animal exhibits along the dorsal surface a row of small organs which, by their structure, seem destined to act a part in performing the function of hearing. They are formed of a vesicle, the centre of which is occupied by a refracting globule; they are called the vesicles of Müller, after Johannes Müller, who discovered them. The auditory organs which have been observed in Worms and the Cœlenterata are apparently composed of a vesiculiform capsule enclosing a solid concretion, called otolith. Thus it is possible that the vesicles of Müller may be auditory vesicles. Up to the present time this organ has not been met with in any other species of Protozoa.

(To be continued.)

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M.D.

Part XIII.

HEREDITY—Continued.

The occasional futility of great learning, if combined with a penchant for a deductive method of reasoning, has perhaps never been more strikingly illustrated than in Arthur Schopenhauer's theory of hereditary intelligence. His fundamental axiom of considering the "Will" (or moral disposition) the primeval and essential constituent in the elements of the soul-organism, leads him to a variety of singular inferences and at last to the remarkable conclusion that

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intelligence can be inherited only from the mother's side; character (the type of "Will") only from the father's. The abstruse *a priori* arguments in behalf of that hypothesis would deter even philosophical readers of his famous treatise, if they were not supported by an almost unparalleled array of countless and ingenious illustrations. Ancient and modern history, scripture, traditions, and family chronicles, are all made to contribute instances of able men descended from unintelligent, but "will-strong," sires and clever mothers, and the *possibility* of that result is certainly demonstrated with conclusive success, though the final inference is as certainly an illustration of an illusion which mediæval schoolmen used to define as the "*post hoc, ergo propter hoc*" fallacy, or the tendency to mistake a coincidence for the result of a causal connection.

Francis Galton's work would furnish abundant material for refuting the negative part of Schopenhauer's argument which goes to the length of denying the possibility of an hereditary transmission of intellectual abilities from father to son, but the rule that "the best way of exploding a superstition is to explain it," applies perhaps as well to the sophisms of Science. A partial explanation can be found in the biological law of moral heredity already mentioned, considered in connection with the circumstance that biographers for centuries almost confined their researches to male lines of ancestry. We have seen that moral dispositions (in consequence of their more potent sway) are transmitted from parents to children far more invariably than mental faculties, and biographical records, limited to the paternal half of genealogical antecedents, must naturally have dealt chiefly with facts apt to mislead even unprejudiced inquirers.

But a far more important circumstance is the influence of pre-natal agencies temporarily modifying the mental and moral characteristics of immediate ancestors. Ribot quotes a variety of apposite cases to explain occasional exception from the general law of heredity; but biologists have as yet failed to recognize the significance of the fact that the causes of intermittence chiefly affect the *paternal* half of ancestral influences. More than two thousand years ago Aristotle named the mental eclipse of intoxicated parents among the causes of idiocy, and it is safe to say that in the course of the last fifteen centuries ninety-nine per cent. of male, to one per cent. of female, ancestors have thus vitiated the intellectual type of their offspring. Wounds may produce an analogous effect. "In the course of Brown Sequard's masterly experiments on the functions of the nervous system," says Dr. Carpenter, "he discovered that after a partial lesion of the spinal cord of Guinea-pigs a slight pinching of the skin of the face would throw the animal

into a kind of epileptic convulsions. That this artificial epilepsy should be constantly producible even after the injury to the spinal cord seemed to have been entirely recovered from, was in itself sufficiently singular; . . . but it was far more wonderful that, when these epileptic Guinea-pigs bred together, their offspring showed the same predisposition, without having been themselves subjected to any lesion whatever, while no such tendency showed itself in any of the large number of young which were bred by the same accurate observer from parents that had not thus been operated upon."

Wounds on the head are well known to affect, more or less permanently, the mental equilibrium of the patient, and several modern pathologists record cases of soldiers, miners, etc., who had been prostrated by a fracture of the skull and who ever afterwards were subject to periodic headaches and intermittent fits of mental disorders. There is no doubt that affections of that sort are often hereditary, especially during the period immediately following the predisposing accident, and here again we may safely assume that in nine out of ten cases the inherited tendency has been transmitted from the male line of ancestors. Even among savage tribes who delegate all sorts of hard labor to the female slaves procured with or without the formality of a nuptial rite, the more perilous pursuits of war and the chase are reserved for the sterner sex; and statistics prove that among a hundred cases of external injuries admitted to our public hospitals there are eighty-five per cent. of male patients, a percentage which in time of war may rise to ninety-five or above. Sunstroke, business troubles, and paroxysms of wrath are all apt to initiate a predisposition to mental disorders and to claim a considerable plurality of male victims. A few years ago my attention was called to the case of a young southern business-man of excellent habits, who without any conceivable cause began to sink under the gradual progress of a disorder which the local physicians defined as "softening of the brain." He had always been more than usually careful of his health. His aversion to stimulants extended to tea and coffee; he had never used tobacco in any form. The affluence of his parents precluded the necessity for over-application to business, and his duties in that respect, had, indeed, been mostly confined to formalities of supervision, and had never been permitted to interfere with the leisure of his holidays and evening hours. There was no taint of mental disease on either side of his ancestors, and the genesis of his affliction seemed an absolute mystery, till his mother informed me that during the year preceding the birth of her only son, his father had been subject to fits of agonizing headaches, caused by a sunstroke and the absurd prescrip-



tions of an alcohol quack. On the other hand, a conjunction of favorable circumstances may transmit an intensified, or happily modified, form of ancestral faculties. The ancient Greeks surrounded child-bearing mothers with all the pleasant influences of nature and art, and Robert Burton suggests that the law of primogeniture was originally founded on the belief that the best faculties of a sire could be transmitted only under the influence of passionate love, a belief apparently shared by the philosopher Vanini, who goes so far as to regret the legitimacy of his birth, because "clandestine amours imply sincere passion, which in married life is soon superseded by the feeble substitute of marital duty." The custom of all nations makes the nuptial week a season of festivities, for reason perhaps analogous to those determining the pairing-season of animals and birds which in all but the highest latitudes so often coincides with the most pleasant time of the year. During the year preceding the birth of Francis Bacon both his parents were cheered by a series of happy events in the turn of their family affairs; Madame de Staël mentions that her father's first year of married life realized all his ideals of earthly happiness, and it is said that during the four months prior to the birth of Napoleon Bonaparte his mother lived in constant ecstasies of political excitements and adventures.

The consideration of such facts would abundantly explain the occasional variations from the type of ancestral characteristics, but at the same time complicate to an almost hopeless degree the difficulty of predicting, in any special case, the result of hereditary influences. Special faculties may become eliminated from a combination of talents deriving their efficiency from that very gift; the results of marriage may complement a brilliant but defective type of intellect or character, and the infinite number of possible combinations and modification must be admitted to include the following momentous chances:

- 1) Possibility of worst qualities inherited from both sides;
- 2) Advantages of one side neutralized by defects of the other;
- 3) Partial advantages of one side supplemented by favorable additions from the other;
- 4) Best qualities inherited from both sides.

The results of the first named contingency are illustrated in the characteristics of certain types of Spanish-American mongrels who seem to combine the restless passions of a Caucasian adventurer with the stupidity and the brutal vices of a degraded savage. A less dangerous, but even more repulsive, combination of ugly character-traits is said to result from the union of the indolent Malays and knavish Chinamen of the Sunda archipelago; and even the ethical toler-

ance of our Mexican neighbors is sometimes overtaken by the depravity of Chinese-African mongrels, who, in the words of a British traveler, "have just brains enough to be mean, and whose penchant for crimes against nature is limited only by their cowardice."

Slight modifications in a combination of character-traits may often completely change the practical result. A son of a gifted father may inherit the wit and the talents of his progenitor, but lack his energy; the children of a genial spendthrift may avoid his errors and their penalties by a grain of prudence; the boys of a profound but pedantic philosopher may achieve popularity by a leaven of mother-wit. "*Heroum filii noxae*," was a Latin proverb justified by the frequent phenomenon of misused energies inherited from an heroic father whose adventurous disposition was balanced by moral principles.

The hope of the fourth contingency is occasionally realized by the union of persons representing the types of advanced and yet contrasting civilizations, and thus wedding idealism to practical energy, or loyalty to a love of freedom. Education in a land of strangers, superadded to strength of mind, may lead to a curiously similar result, and we accordingly find that a list of great names on all rolls of fame includes a remarkable number of men, either of mixed blood or of composite citizenship: Napoleon, Columbus, Seneca, Trajan, Kanut, Mirabeau, Byron, Bruno, Anacharsis, Spinoza, Chamisso, Moses, Disraeli, Macmahon, Marshal Saxe, De Staël, Rousseau, Herschel, Arago, Vanduyck, Dumas, Heine.

It is a significant fact that during the brightest period of Pagan civilization the bonds of political separatism had been considerably relaxed; and the free inter-marriage of a population representing the most enterprising and intelligent tribes of the Caucasian race is perhaps the most favorable omen for the social future of our cosmopolitan republic.

(To be continued.)

#### HERBERT SPENCER ON THE ETHICS OF KANT.\*

Mr. Herbert Spencer has published in *The Popular Science Monthly* for August, an essay on the Ethics of Kant; a translation of this article had appeared in the July Number of the *Revue Philosophique*, and it cannot fail to have been widely noticed. It is to be regretted that unfamiliarity with the German language and perhaps also with Kant's terminology has led Mr. Spencer into errors to which attention is called in the following discussion.

Mr. Spencer says:

"If, before Kant uttered that often-quoted saying in which, 'with the stars of Heaven he coupled the conscience of Man, as 'being the two things that excited his awe, he had known more of

\* Quotations from Mr. Spencer's essay will be distinguished by quotation-marks, while those from Kant will appear in hanging indentations.



"Man than he did, he would probably have expressed himself somewhat otherwise."

Kant, in his famous dictum that two things excited his admiration, the starry heaven above him and the conscience within him, contrasted two kinds of sublimity.\* The grandeur of the Universe is that of size and extension, while the conscience of man commands respect for its moral dignity. The universe is wonderful in its expanse and in its order of mechanical regularity; the conscience of man is grand, being intelligent volition that aspires to be in harmony with universal laws.

Mr. Spencer continues:

"Not indeed, that the conscience of Man is not wonderful enough, whatever be its supposed genesis; but the wonderfulness of it is of a different kind according as we assume it to have been supernaturally given or infer that it has been naturally evolved. The knowledge of Man in that large sense which Anthropology expresses, had made, in Kant's day, but small advances. The books of travel were relatively few, and the facts which they contained concerning the human mind as existing in different races, had not been gathered together and generalized. In our days, the conscience of Man as inductively known has none of that universality of presence and unity of nature which Kant's saying tacitly assumes."

Mr. Spencer apparently supposes that Kant believed in a supernatural origin of the human conscience. This, however, is erroneous.

Mr. Spencer's error is excusable in consideration of the fact that some disciples of Kant have fallen into a similar error. Professor Adler, of New York, who attempts in the Societies for Ethical Culture to carry into effect the ethics of Pure Reason, maintains that the commandments of the *ought* and "the light that shines through them come from beyond, but its beams are broken as they pass through our terrestrial medium, and the full light in all its glory we can never see."

Ethics based on an unknowable power, is mysticism; and mysticism does not essentially differ from dualism and supernaturalism.

Kant's reasoning is far from mysticism and from supernaturalism. He was fully convinced that civilized man with his moral and intellectual abilities had naturally evolved from the lower state of an animal existence. We read in his essay, "Presumable Origin of the History of Mankind" (Muthmasslicher Anfang der Menschengeschichte. Editio Hartenstein, Vol. IV, p. 321):

"From this conception of the primitive history of mankind it follows that the departure of man from the paradise represented

to him by his reason as the earliest place of sojourn of his race, has been nothing else than the transition from the rude condition of a purely animal existence to the condition of a human being; a transition from the leading-strings of instinct to direction by reason, in a word, from the protectorate of nature to a status of freedom."

The view that the conscience of man is innate, in the sense of a non-natural, of a mysterious, or even of a supernatural origin, is untenable. Those disciples of Kant who entertain such views have certainly misinterpreted their great master, and the passages adduced by Mr. Spencer from so many sources are sufficient evidence of the fact that "there are widely different degrees" [we should rather say kinds] "of conscience in the different races." Mr. Spencer continues:

"Had Kant had these and kindred facts before him, his conception of the human mind, and consequently his ethical conception, would scarcely have been what they were. Believing, as he did, that one object of his awe—the stellar Universe—has been evolved,\* he might by evidence like the foregoing have been led to suspect that the other object of his awe—the human conscience—has been evolved; and has consequently a real nature unlike its apparent nature." \*\*\* "If, instead of assuming that conscience is simple because it seems simple to careless introspection he had entertained the hypothesis that it is perhaps complex—a consolidated product of multitudinous experiences received mainly by ancestors and added to by self—he might have arrived at a consistent system of Ethics." \*\*\*

In brief, as already implied, had Kant, instead of his incongruous beliefs that the celestial bodies have had an evolutionary origin, but that the minds of living beings on them, or at least on "one of them, have had a non-evolutionary origin, entertained the belief that both have arisen by Evolution, he would have been saved from the impossibilities of his Metaphysics, and the untenability of his Ethics."

Mr. Spencer believes that Kant had assumed conscience to be "simple, because it seems simple to careless introspection." But there is no evidence in Kant's works for this assumption. On the contrary, Kant reversed the old view of so-called "rational psychology" which considered conscience as innate and which was based on the error that consciousness is simple. Des Cartes's syllogism *cogito ergo sum* is based on this idea, which at the same time served as a philosophical evidence for the indestructibility and immortality of the *ego*. The simplicity of consciousness had been considered as an axiom, until Kant came and showed that it was a fallacy, a paralogism of pure reason. Dr. Noah Porter has written, from an apparently dualistic standpoint, a sketch entitled "The Ethics of Kant," in which he says:

"The skepticism and denials of Kant's speculative theory in respect to noumena, both material and psychical, had unfortunately cut him off from the possibility of recognizing the personal *ego* as anything more than a logical fiction."

Kant says in his "Critique of Pure Reason": †

\* The stellar Universe, of course, has not been evolved; Mr. Spencer means that according to Kant's mechanical explanation the planetary systems and Milky ways of the stellar Universe are in a state of constant evolution.

† Translation by J. M. D. Meiklejohn, pp. 244, 249.

\* Kant distinguishes two kinds of sublimity: 1) the mathematical, and 2) the dynamical. His definitions are: 1) sublime is that in comparison with which everything else is small; and 2) sublime is that the mere ability to conceive which shows a power of emotion (Gemüth), the latter transcending any measurement by the senses. [1] Erhaben ist, mit welchem im Vergleich alles andere klein ist. 2) Erhaben ist, was auch nur denken zu können ein Vermögen des Gemüths beweist, das jeden Maassstab der Sinne übertrifft. Editio Hartenstein, Vol. V, pp. 237, 238.]



"In the internal intuition there is nothing permanent, for the *Ego* is but the consciousness of my thought. \* \* \* From all this it is evident that rational psychology has its origin in a mere misunderstanding. The unity of consciousness, which lies at the basis of the categories, is considered to be an intuition of the subject as an object; and the category of substance is applied to the intuition. But this unity is nothing more than the unity in *thought*, by which no object is given; to which therefore the category of substance cannot be applied.\*"

Concerning the statement that Kant had believed in the non-evolutionary origin of living beings, we quote from his essay on *The Different Races of Men*, Chap. III, where Kant speaks of "the immediate causes of the origin of these different races." He says:

"The conditions (*Gründe*) which, inhering in the constitution of an organic body, determine a certain evolutionary process (*Auswicklung*) are called, if this process is concerned with particular parts, *germs*; if, on the other hand, it touches only the size or the relation of the parts to one another, I call it *natural capabilities* (*natürliche Anlagen*)."

And in a foot-note Kant makes the following remark:

"Ordinarily we accept the terms natural science (*Naturbeschreibung*) and natural history in one and the same sense. But it is evident that the knowledge of natural phenomena, as they *now are*, always leaves to be desired the knowledge of that which they *have been* before now and through what succession of modifications they have passed in order to have arrived, in every respect, to their present state. *Natural History*, which at present we almost entirely lack, would teach us the changes that have affected the form of the earth, likewise, the changes in the creatures of the earth (plants and animals), that they have suffered by natural transformations and, arising therefrom, the departures from the prototype of the original species, that they have experienced. It would probably trace a great number of apparently different varieties back to species of one and the same kind and would convert the present so intricate school-system of Natural Science into a natural system in conformity with reason." §

Kant has nowhere, so far as we know, made any objection to the idea of evolution. But he opposed the theory that all life should have originated from *one single kind*. In reviewing and epitomizing Joh. Gottfr. Herder's work, "*Ideen zur Geschichte der Menschheit*," Kant says:

\* Compare also Kant's "Proi. zu jeder künftigen Metaphysik," § 46.

† We call attention to Kant's peculiar expression, in this passage, of *Auswicklung* which has now yielded to the term *Entwicklung*.

‡ Die in der Natur eines organischen Körpers (Gewächses oder Thieres) liegenden Gründe einer bestimmten Auswicklung heißen, wenn diese Auswicklung besondere Theile betrifft, *Kerne*; betrifft sie aber nur die Grösse oder das Verhältniss der Theile unter einander, so nenne ich sie *natürliche Anlagen*.

§ Wir nehmen die Benennungen *Naturbeschreibung* und *Naturgeschichte* gemeinlich in einerlei Sinne. Allein es ist klar, dass die Kenntniss der Naturdinge, wie sie *jetzt sind*, immer noch die Erkenntniss von demjenigen wünschen lasse, was sie *ehemal gewesen sind* und durch welche Reihe von Veränderungen sie durchgegangen, um an jedem Ort in ihren gegenwärtigen Zustand zu gelangen. Die *Naturgeschichte*, woran es uns noch fast gänzlich fehlt, würde uns die Veränderung der Erdgestalt, imgleichen die der Erdschöpfung (Pflanzen und Thiere), die sie durch natürliche Wanderungen (sic! I take it as a misprint for *Wandelungen*) erlitten haben, und ihre daraus entsprungnen Abartungen von dem Urbilde der Stammgattung lehren. Sie würde vermuthlich eine grosse Menge scheinbar verschiedener Arten zu Racen ebendieselben Gattung zurückführen, und das jetzt so weitläufige Schulsystem der Naturbeschreibung in ein physisches System für den Verstand verwandeln.

\* \* \* "Book II, treats of organized matter on the earth. \* \* \* The beginnings of vegetation. \* \* \* The changes suffered by man and beast through climatic influences. \* \* \* In them all we find one prevailing form and a similar osseous structure. \* \* \* These transitional links render it not at all impossible that in marine animals, in plants, and, indeed, possibly in so-called inanimate substances, one and the same fundamental principle of organization may prevail, although infinitely cruder and more complex in operation. In the sight of eternal being, which beholds all things in one connection, it is possible that the structure of the ice-particle, while receiving form, and of the snowflake, while being crystallized, bears an analogous relation to the formation of the embryo in a mother's womb. \* \* \* The third book compares the structure of animals and plants with the organization of man. \* \* \* It was not because man was ordained to be a rational creature that upright stature was given him for using his limbs according to reason; on the contrary he acquired his reason as a consequence of his upright stature. \* \* \* From stone to crystals, from crystals to metals, from metals to plant-creation, from thence to the animal, and ultimately to man, we have seen the form of organization advancing, and with it the faculties and instincts of creatures becoming more diversified, until at last they all became united in the human form, in so far as the latter could comprise them. \* \* \* As the body increases by food, so does the mind by ideas; indeed, we notice here the same laws of assimilation, of growth, and of generation. In a word, an inner spiritual man is being formed within us, which has a nature of its own and which employs the body as an instrument merely. \* \* \* Our humanity is merely a preliminary training, the bud of a blossom to come. Step by step does nature cast off the ignoble and the base, while it builds and adds to the spiritual and continues to fashion the pure and refined with increasing niceness; thus are we in a position to hope from the artist-hand of nature that in that other existence our bud of humanity will also appear in its real and true form of divine manhood." \* \* \*

[Herder's idea of evolution would stand on the whole if his conception of "the spiritual" did not imply a preternatural agent.]

"The present state of man is probably the link of junction between two worlds. \* \* \* Yet man is not to investigate himself in this future state; he is to believe himself into it."

Kant makes no objection whatever to the evolutionary ideas of Herder. But Herder was not free from supernaturalism and from fantastic ideas in reference to the future development of man. He had not yet dropped the dualistic conception of the 'duplicity' of man and believed in the immortality of a distinct spiritual individual within his body. Kant's objection, therefore, is twofold; 1) against Herder's supernaturalism which leads him beyond this world; and, 2) against the descent of *all* species from *one* and *the same genus*. He says:

"In the gradation between the different species and individuals of a natural kingdom, nature shows us nothing else than the fact that it abandons individuals to total destruction and preserves the species alone. \* \* \* As concerns that *invisible* kingdom of active and independent forces, we fail to see why the author, after having believed he could confidently infer from organized beings, the existence of the rational prin-



ciple in man did not rather attribute this principle directly to him merely as spiritual nature, instead of lifting it out of chaos through the structural form of organized matter.

\* \* \* As to the gradation of organized beings, our author is not to be too severely reproached, if the scheme has not met the requirements of his conception, which extends so far beyond the limits of this world; for its application even to the natural kingdoms here on earth leads to nothing. The slight differences exhibited when species are compared with reference to their common points of resemblance, are, where there is such great multiplicity, a necessary consequence of just this multiplicity. The assumption of common kinship between them, inasmuch as one kind would have to spring from another and all from one original and primitive species, or from one and the same creative source (Mutterschoß)—the assumption of such a common kinship would lead to ideas so strange that reason shrinks from them, and we cannot attribute this idea to the author without doing him injustice. Concerning his suggestions in comparative anatomy through all species down to plants, the workers in natural science must judge for themselves whether the hints given for new observations, will be useful and whether they are justified. \* \* \*

It is desirable that our ingenious author who in the continuation of his work will find more *terra firma*, may somewhat restrain his bright genius, and that philosophy (which consists rather in pruning than in fostering luxuriant growth), may lead him to the perfection of his labors not through hints but through definite conceptions, not by imagination but by observation, not by a metaphysical or emotional phantasy but by reason, broad in its plan but careful in its work."

Kant rejected certain conceptions of evolution, but he did not at all show himself averse to the idea in general. He touched upon the subject only incidentally and it is certain that he did not especially favor or entertain the belief in a non-evolutionary origin of living beings.

Before proceeding to the main points of his criticism, Mr. Spencer calls attention to what he designates as Kant's *abnormal* reasoning. Mr. Spencer says:

"Something must be said concerning abnormal reasoning as compared with normal reasoning." \* \* \*

"Instead of setting out with a proposition of which the negation is inconceivable, it sets out with a proposition of which the affirmation is inconceivable, and therefrom proceeds to draw conclusions." \* \* \*

"The first sentence in Kant's first chapter runs thus: 'Nothing can possibly be conceived in the world, or even out of it, which can be called good without qualification, except a Good Will.' \* \* \*

"Most fallacies result from the habit of using words without fully rendering them into thoughts—passing them by with recognitions of their meanings as ordinarily used, without stopping to consider whether these meanings admit of being given to them in the cases named. Let us not rest satisfied with thinking vaguely of what is understood by 'a Good Will,' but let us interpret the words definitely. Will implies the consciousness of some end to be achieved. Exclude from it every idea of purpose, and the conception of Will disappears. An end of some kind being necessarily implied by the conception of Will, the quality of the Will is determined by the quality of the end contemplated. Will itself, considered apart from any distinguishing epithet, is not cognizable by Morality at all. It becomes cognizable by Morality only when it gains its character as good or bad by virtue of its contemplated end as good or bad." \* \* \*

"Kant tells us that a good will is one that is good in and for itself without reference to ends."

It is unfortunate that Mr. Spencer misunderstood the first sentence of Kant's book (*Grundlegung zur Metaphysik der Sitten*). Kant does not speak of "a good will without qualification," nor does the expression "without qualification" refer to "a will without reference to ends." Kant speaks of good will in opposition to other good things. Nothing, he says, can without qualification (*ohne Einschränkung*) be called good, except a good will.\* Dr. Porter sums up the first page of Kant's essay in the following words:

"The first section of the treatise opens with the memorable and often-quoted utterance, that 'nothing can be possibly conceived in the world, or even out of it, which can be called good without qualification, except a good will.' If character is compared with gifts of nature, as intelligence, courage, and gifts of fortune, as riches, health, or contentment, all these are defective, 'if there is not a good will to correct their possible perversion and to rectify the whole principle of acting, and adapt it to its end.' † A man who is endowed with every other good can never give pleasure to an impartial, rational spectator unless he possesses a good will. 'Thus a good will appears to constitute the indispensable condition of being worthy of happiness.' \* \* \* Moreover, a good will is good not for what it effects but for what it intends, even when it fails to accomplish its purposes, \* \* \* as when the man wills the good of another and is impotent to promote it, or actually effects just the opposite of what he proposes or wills."

In the passages quoted by Dr. Porter, Kant speaks of "the end to which good will adapts other goods"; and in another passage of the same book, Kant directly declares that "it is the end that serves the will as the objective ground of its self-determination." Mr. Spencer must have overlooked these sentences. Kant says:

"The will is conceived as a power of determining itself to action in accordance with the conception of certain laws. And such a power can only be met with in rational beings. Now it is the *END* that serves the will as the objective ground of its self-determination, and this end, if fixed by reason alone, must hold equally good for all rational creatures."

Kant rejects the idea that happiness is the end and purpose of life and at the same time he declares that ethics must be based not on the pursuit of happiness but on the categorical imperative or more popularly expressed on our sense of duty.

Mr. Spencer argues:

"One of the propositions contained in Kant's first chapter is 'that we find that the more a cultivated reason applies itself with deliberate purpose to the enjoyment of life and happiness, so much the more does the man fail of true satisfaction.' \* \* \*

"That which Kant should have said is that the exclusive pursuit of what are distinguished as pleasures and amusements is disappointing." \* \* \*

"It is not, as Kant says, guidance by 'a cultivated reason,'

\* The original of the first sentence reads: "Es ist überall nichts in der Welt, ja überhaupt auch ausser derselben zu denken möglich, was ohne Einschränkung gut könnte gehalten werden, als allein ein guter Wille."

† *Italicis auctoris.*



"which leads to disappointment, but guidance by an uncultivated reason."

The passage quoted by Mr. Spencer from Kant, reads in its context as follows:

"In the physical constitution of an organized being we take it for granted\* that no organ for any purpose will be found in that such as is also the fittest and best adapted for that purpose. If in a being possessing reason and will, the preservation, the prosperity, in a word, the happiness of that being, constituted the actual purpose of nature, nature had certainly adopted an extremely unwise expedient to this end, had it made the reason of that being the executive agent of its purposes in this matter. For all actions that it had to perform with this end in view, and the whole role of its conduct, would have been far more exactly prescribed by *instinct*, and this end would have been far more safely attained by this means than can ever take place through the instrumentality of *reason*." \* \* \*

"As a matter of fact we find that the more a cultivated reason occupies itself with the purpose of enjoying life and happiness, the farther does the person possessing it recede from the state of true contentment; and hence there arises in the case of many, and pre-eminently in the case of those most experienced in the exercise of reason, if they are only frank enough to confess it, a certain degree of misology or hate of reason; for after weighing every advantage that they derive, I will not say from the invention of all *arts* facilitating ordinary luxury, but even from the sciences, (which after all are in their eyes a luxury of the intellect,) they still discover that virtually they have burdened themselves more with toil and trouble than they have gained in point of happiness, and thus, in the end, they are more apt to envy than condemn the commoner type of men who are more immediately subject to the guidance of natural instinct alone, and who do not suffer their reason to influence in any great degree their acts and omissions."

Kant uses the expression "cultivated reason" not in opposition to "uncultivated reason," but "to instinct" as that inherited faculty which teaches a being to live in accordance with nature and its natural conditions, without the interference of thought and reflection.

That uncultivated reason would lead to disappointment, Kant never would have denied. He would have added: "It does more, it leads to a speedy ruin."

But if reason does not produce happiness, what then is the use of reason? Kant answers, reason produces in man the good will.

It is reason which enables man to form abstractions, to think in generalizations and to conceive the import of universal laws. When his will deliberately and consciously conforms to universal laws, it is good.

Kant says:

\*The phrase "we take it for granted" (in the original "nehmen wir es als Grundsatz an") reads in the translation quoted by Mr. Spencer: "we take it as a fundamental principle." Mr. Spencer objects to the passage declaring that there are many organs (such as rudimentary organs) in the construction of organized beings which serve no purpose. This however does not stand in contradiction to Kant's assumption that organs of organized beings serve a special purpose. The rudimentary organs have under other conditions served a purpose for which they then were fit and well adapted and are disappearing now because no longer used.

"Thus will (viz. the good will) can not be the sole and whole Good, but it must still be the highest Good and the condition necessary to everything else, even to all desire of happiness." \* \* \*

"To know what I have to do in order that my volition be good, requires on my part no far-reaching sagacity. Unexperienced in respect of the course of nature, unable to be prepared for all the occurrences transpiring therein, I simply ask myself: Can'st thou so will, that the maxim of thy conduct may become a universal law? Where it can not become a universal law, there the maxim of thy conduct is reprehensible, and that, too, not by reason of any disadvantage consequent thereupon to thee or even others, but because it is not fit to enter as a principle into a possible enactment of universal laws."

If a maxim of conduct is fit to enter as a principle into a possible enactment of universal laws, it will be found in harmony with the cosmical laws; if not, it must come in conflict with the order of things in the universe. It then cannot stand, and will, if persistently adhered to, lead (perhaps slowly but inevitably) to certain ruin.

Concerning the proposition that happiness may be regarded as the purpose of life Kant in his review of Herder's "Ideen zur Philosophie der Geschichte der Menschheit" Ed. H. IV, p. 190, speaks of the relativity of happiness and its insufficiency as a final aim of life:

\* \* \* "First of all the happiness of an animal, then that of a child and of a youth, and lastly that of man! In all epochs of human history, as well as among all classes and conditions of the same epoch, that happiness has obtained which was in exact conformity with the individual's ideas and the degree of his habituation to the conditions amid which he was born and raised. Indeed, it is not even possible to form a comparison of the degree of happiness nor to give precedence to one class of men or to one generation over another. \* \* \* If this shadow-picture of happiness, . . . were the actual aim of Providence, every man would have the measure of his own happiness within him. \* \* \* Does the author (Herder) think perhaps that, if the happy inhabitants of Otaheite had never been visited by more civilized peoples and were ordained to live in peaceful indolence for thousands of years to come—that we could give a satisfactory answer to the question why they should exist at all and whether it would not have been just as well that this island should be occupied by happy sheep and cattle as that it should be inhabited by men who are happy only through pure enjoyment?"

Concerning the mission or purpose of humanity and its ultimate realization, Kant interprets Herder's views as follows:

"It involves no contradiction to say that no individual member of all the offspring of the human race, but that only the species, fully attains its mission (Bestimmung). The mathematician may explain the matter in his way. The philosopher would say: the mission of the human race as a whole is *unceasing progress*, and the perfection (Vollendung) of this mission is a mere idea (although in every aspect a quite useful one) of the aim towards which, in conformity with the design of providence, we are to direct our endeavors."

We learn from the passages quoted from Kant that his idea of good will is neither mystical and su-



pernatural, nor is it vague. It is a conception as logically and definitely defined as any mathematical definition. Good will in the sense in which Kant defines it, is only possible in a reasonable being by the power of its reason. The good will is the intention of conforming to universal principles and thus of being in harmony with the All. This good will is the cornerstone of Kant's ethics; it appears as the categoric imperative of duty, so to act that the maxim of one's conduct may be fit to become a universal law. It is formulated in another passage: "Act so as if the maxim of thy conduct by thy volition were to become a natural law."

It is easily seen that, in Kant's conception, the *ought* of morals (viz. of the categoric imperative) does not stand in contradiction to the *must* of natural laws. Kant's conception is monistic, not dualistic. Kant says:

"The moral *ought* is man's inner, necessary volition as being a member of an intelligible world and is conceived by him as an ought only in so far as he considers himself also as a member of the sensory world."<sup>6</sup>

Our way of explaining it would be: Man *feels* in his activity the categoric imperative as an ought. So the snow crystal, if it were possessed of sensation, would *feel* its formation as an "ought." But both are, and to an outside observer will appear, as a "must."

(To be continued.)

#### THE LOST MANUSCRIPT.†

BY GUSTAV FREYTAG.

#### CHAPTER XXII.—THREE COUNCILS.

The year of the Rectorate had so changed the household and the current of Ilse's thoughts that she remarked with astonishment to her husband, "I feel as if I had just come from school into the bustle of the world." Her husband's days were engrossed with distracting business: difficult transactions between the University and Government, and vexatious occurrences among the students, took up a great portion of his time.

The evening, also, did not pass as in the first year, when Ilse watched the quiet labors of her husband, or listened to his friends; for many were occupied by the sessions of the Senate, and others by large parties, which, as Rector, he could not avoid. When their friends came to tea, the master of the house was often absent.

Ilse had taken her father's lessons to heart; she lived in the present, and avoided distracting thoughts. Her husband took pains to keep from her anything

that could disturb her repose of mind, and the intellectual diet which he now gave her did her good. When he again saw her in society in all her health and strength, with color in her cheeks and a cheerful expression in her countenance, he felt it his duty for ever to preserve this soul from the intrusion of conflicting ideas; and he was pleased that, by frequent intercourse with various kinds of men, and by the light bonds of a genial society, she began to feel at home in his circle. It delighted him, too, to find that her ingenuous nature was appreciated; and she was not only treated with distinction by the men, but was also a favorite with the ladies.

Ilse would not, however, allow her private converse—as she called the hours during which she received her husband's instruction—to be disturbed; she adhered to it with rigid strictness; and if a day was missed, the lost time had to be made up on the following one. But even these lessons took a different course. The Professor now read to her small extracts from old writers, who portrayed, in prose and verse, the attractive beauty of the life of the ancients; her innocent mind entered into the cheerful enjoyment of this strange world, and the impressions which she received agreed perfectly with the way in which she now regulated her own life. The Professor explained to her some of the poems of the Greek anthology and of Theocritus, and a few of the Roman lyrics; and, by way of comparison, he read to her the poems of the great German who, in a remarkable way, had been able to unite Greek beauty with German feeling.

At her reception, Ilse showed all the dignity of her position as the Rector's wife; every room was opened; the apartments were decorated and brilliantly illuminated; the heads of the University and city, with their wives, made their appearance in numbers; and the Prince and his Chamberlain did not fail to be present. Laura assisted gracefully in doing the honors, and quietly gave directions to the servants; cake and wine were passed around; the guests made themselves very agreeable, and separated in the highest spirits. The great evening had passed off happily; the Doctor and Laura had left; Ilse gave her last injunctions to Gabriel, and passed through the rooms once more, with the glad feeling that she had done honor to Felix and herself. She came into her dressing-room, and glanced into the mirror.

"You need not examine yourself critically," said the husband, "everything was beautiful; but the most beautiful of all was the Rector's wife."

"Damon, my shepherd," replied Ilse, "you are blinded. It is not the first time you have said this, but I like to hear it; you may still tell it often to me. But Felix," she continued, as she unloosed her hair, "there is something inspiring about such a

<sup>6</sup> Das moralische Sollen ist also ein eigenes notwendiges Wollen als Gliedes einer intelligiblen Welt, und wird nur sofern von ihm als Sollen gedacht, als er sich zugleich wie ein Glied der Sinnenwelt betrachtet. Ed. Hartenstein vol IV, p. 303.

† Translation copyrighted.



society even where people do nothing but talk. One does not carry away much of it, but still there is a pleasure in being among them; they are all so courteous and endeavor to appear to the best advantage, and each tries to please the other."

"They do not all succeed in giving a fair idea of what they are on such occasions, least of all we book-worms," replied Felix. "But there is no doubt these gatherings give a certain similarity of language and manner, and, finally, also of ideas to persons who live in the same circle. This is very necessary, for even those who live together often differ as much in their thoughts and feelings as if they had been born in different centuries. How did you like the Chamberlain?"

Ilse shook her head. "He is the most courteous and lively of all, and knows how to say something civil to every one; but one cannot trust him, for, as with an eel, one has no hold on him, and can never for a moment look into his heart. I prefer our Prince with his stiff manner. He talked to me about his sister to-day; she must be very clever and charming. To which of your centuries does he belong?"

"To the middle of the last," replied her husband, laughing; "he is a full century earlier than we are, of the period when men were divided into two classes—those who were fit to be received at Court, and serfs. But if you examine those about us, you will discover even greater disparities. There is our Gabriel, who in his prejudices and his poetry belongs to an age three centuries earlier than the present. His ways of thinking remind one of the time in which the great Reformers first educated our people to think. On the other hand, the hostile neighbors are, in many points of view, the representatives of two opposing tendencies which ran parallel to each other towards the end of the last century—in our house, obstinate rationalism; in the old people over there, a weak sentimentality."

"And what time do I belong to?" asked Ilse, placing herself before her husband.

"You are my dear wife," he exclaimed, trying to draw her towards him.

"I will tell you," continued Ilse, eluding him: "in your opinion, I belong to a former age, and once that made me more unhappy than I can express. But I no longer care about it. For when I can compel you to kiss my hand as often as I desire it"—the Professor was very willing—"when I see that it requires no persuasion to induce you to kiss me on the lips—it is not necessary that you should try it now,—I believe you. Further, when I observe that the learned gentleman is not disinclined to hand my slippers to me, and perhaps even my dressing gown—I do not wish to give you trouble now, but unhook my ear-rings and open

the jewel-box,—and when I, besides, observe that you are anxious to please me, that at my wish you took the wife of the Consistorial Councillor to dinner, whom you could not bear, and that you have bought me this beautiful dress, although you understand nothing about buying; when I, further, see that Magnificus is quite under my sway, that I have the keys of the pantry, and even manage the accounts; and, lastly, when I bear in mind that you, good bookworm, think me, your wife Ilse, worthy of a little discussion together with your Greeks and Romans, and that it is a pleasure to you when I understand a little of your learned writings—I come to the conclusion that you belong entirely to me, you and your century, and that it is quite indifferent to me in what period of the world's history my spirit originated. Then when I, the relic of a distant century, pinch your ear, as I do now, the great master of the present and future, and his philosophizing on the different natures of men, become simply ludicrous. Now that I have held this discourse, can you sleep quietly?"

"That would be difficult," replied the Professor, "whilst the learned housewife is fluttering about the bed, holding discourses in her dressing-gown which are more lengthy than those of a Roman philosopher, and whilst she rattles the doors of the cupboards and wanders about the room."

"My tyrant requires his coffee early in the morning, so it must be given out now, and I cannot sleep if I have not all the keys near me."

"I see nothing will be of any use," said the Professor, "but a serious exorcism."

"I must see whether there are any lights burning in the rooms." But immediately afterwards she knelt down by the bed, and threw her arms round his neck. "Everything is so charming in the world, Felix," exclaimed she; "let us humbly pray that our happiness may last."

Yes, you are happy, Ilse; but, as your father said, you have to thank your prudence for it, not your courage.

\* \* \*

When Ilse wrote to her father, to describe how the great evening party had passed off, she did not forget to add that her future Sovereign had been among the guests, and that she had had much intelligent conversation with him. Her father did not appear to attach much value to this last communication, for he answered, rather irritated, "If you are so influential an adviser, exert yourself to obtain a decision for us in regard to the highway. The affair has been before the magistrates for ten years; it is a shame that we should be so cut off from all the world. The gray has broken his leg. Our estate would be worth ten thou



sand dollars more if the Government were not so dilatory."

Ilse read the letter to her husband, and said, "We can tell the Prince about the road; he can arrange it with his father."

Her husband laughed. "I will not undertake this commission: it does not appear to me as if the Prince would have great influence with the Government."

"We will see about that," replied Ilse, gaily; "at the next opportunity I shall speak to him about it."

This opportunity soon occurred. The Consistorial Councillor, who was now Theological Dean, had a tea-party. It was a distinguished and dignified assembly, but not agreeable to Ilse; she had long mistrusted the piety of the Dean, for beneath the gown of the bland gentleman she clearly saw a fox's tail peeping out; in the speeches of the Dean's wife there was an unpleasant mixture of honey and gall. The rooms were small and hot, and the guests seemed bored; but the Hereditary Prince and his Chamberlain had promised to come. As he entered, the master of the house and some of the guests who were acquainted with the customs of the Court endeavored to form a line for his reception; but all their attempts were vain, from the heedlessness or obstinacy of most of the company. The Prince, led by the Dean, had to make his way through the groups up to the mistress of the house. His eyes turned from her sharp features and wandered about to where Ilse stood, like a being from another planet; she looked quite majestic; her ribbon head-dress sat like a coronet on her wavy hair, which in great abundance almost surrounded her head. The Prince looked shyly up to her, and could scarcely find proper words with which to accost her. When, after a short greeting, he again turned to the rest of the company, Ilse was displeased; she had expected more attention from their intimacy. She did not consider that his position in society was not that of a private man, and that he had to fulfill his princely duties before he could go about like others. Whilst with inward disgust he did what his position required of him, going slowly round, he went first to Ilse's husband, then to the other dignitaries; had some presented to him, and asked the questions that are considered right in these cases; but he waited impatiently for the time when fate would allow him to have a little conversation with his countrywoman. But he did his duty bravely; the Professor of History expressed his pleasure that some old chronicles of his country would be published, and endeavored, half-talking and half-teaching, to impress him with their importance. Meanwhile the Prince thought that the Rector's wife would, at least, sit at his left hand, the Chamberlain having pointed out to him that the Dean's wife might be at his right.

The affair was doubtful. The Dean's wife was certainly the hostess, but the evening had a certain official University tone about it, and Ilse was undoubtedly entitled to precedence among the professors' wives. Nevertheless, all question ceased to exist when the fact was considered that the Dean, on account of numerous presentations of theological works, and many letters of admiring homage, had been made by the reigning sovereign, Knight Commander of his order. He had been so exalted by this, as the Chamberlain explained, that the difference of dignity between the Magnificus and Dean was more than compensated, and the Dean's wife had therefore the first place. The Chamberlain acknowledged that in reality it was a matter of no consequence how people were seated here, for there could be no question of any right of rank in this society. But it would be more becoming for the Prince not to neglect all distinctions.

At his left, at all events, the Prince hoped to have Ilse. But even this hope was frustrated by the artfulness of the Dean's wife. For there was amongst the company a Colonel's wife; they were people of old family, but recently come to the place. The lady of the house lost no time in taking the Colonel's wife up to the Chamberlain, and on meeting, it turned out that they had common relations. By this the whole arrangement of rank at supper was disturbed. The lady claimed her right to be presented. The Chamberlain took her to the Prince, who cleverly anticipated the former's intention, and expressed a wish to make the lady's acquaintance.

"She allows herself to be presented to a student!" said little Mrs. Günther, astonished.

"That is a breach of social rights, which touches the dignity of woman," said Mrs. Struvelius, displeased.

"But she did it very nicely," said Ilse; "her manner with him pleases me."

The ladies did not know that the object of their remarks was, in this moment of apparent humiliation, enjoying the triumph of a higher position. The Prince, the Colonel's wife, and the Chamberlain for a short time formed a group, from which the light of the evening radiated, all three with the proud consciousness that they were united in a bond of fellowship among strangers.

The consequence of this presentation was that the Colonel's wife sat at the left of the Prince, and Ilse between two Deans opposite to him. It did not make it easier for the Prince to preserve his princely dignity when every time he looked up, he saw the eyes and curls of his countrywoman opposite to him. The evening passed slowly for him, and it was not till the party was breaking up that he had an opportunity of speaking to Ilse without restraint.

*(To be continued.)*



GEORGE M. GOULD.

In Nos. 24, 25 and 26 Mr. George M. Gould treats of "The Ethics of Economics" rather as a quality absent from our economic system than as a living principle belonging to it. His doctrine is that all things produced by human labor represent the expenditure of human life, and that dollars and dimes, being representatives of wealth or earnings, are as drops of precious human blood. Therefore, in order to a rightful ownership of dollars, we must earn them; we must return to society a share of our own lives equal to the quantity we have received from our fellow men. According to Mr. Gould, whenever we eat or drink we partake of a solemn eucharist, where "the shadowy ghost of humanity calls out to us: 'Take, eat; this is my body. Drink ye all of this, my blood which is shed for many.'" This is not to be understood metaphorically, he says, but as "an exact statement of the fact."

While perhaps the theory of economics presented by Mr. Gould may not be scientifically true in all its parts, the moral he draws from the actual facts of our industrial system is true enough for warning and for guidance. The partnership of capital and labor is the panacea of Mr. Gould, the solution of the labor question. But from his ideal plans of industrial emancipation he excludes unpleasant facts. He allows only profit-sharing to come in, and loss-sharing is never taken into calculation. Yet it is the possibility of loss that has thus far defeated the "co-operation" experiment. It is doubtful if the operatives in any great factory would accept the whole plant as a gift, if compelled to take it on the terms by which its owners run it, the chances of profit and loss.

There is some extravagance in his language, but that is only a measure of his benevolent impatience at the inequalities and wrongs which refuse to be cured by his remedies. That the "ethics of economics" lies in the doctrine of "equivalence for service" is very likely true, but there is a difference of opinion as to the correct measure of that "equivalence," and a still greater dispute as to the means by which that measure shall be legalized and enforced.

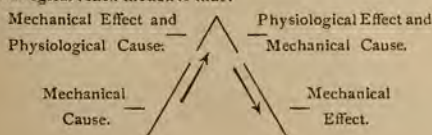
G. H. SCHNEIDER.

In No. 24 will be found an essay of profound and radical thought on "Reflex Motions" by G. H. Schneider. The chaos of the old psychology is cleared since modern psychology begins to discover the laws which govern the intellectual domain of the soul. Schneider shows that the activity of the mind can be resolved into pure reflex actions, and illustrates his view in the following diagrams:

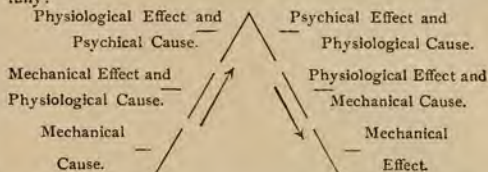


A mechanical cause, say the pressure of a limb, produces a mechanical effect, viz., the motion of the limb.

The physiological aspect is more complicated. The mechanical cause (say the pressure of a limb) causes a mechanical effect (for instance, a compression of flesh). This mechanical effect produces a physiological cause (viz., a change of the chemical constituents in the muscle and nerve tissues). This physiological effect produces a mechanical cause (which may be a cramp of the muscle), and accordingly it causes as a further mechanical effect a prolonged contraction of the limb. The diagram for a physiological reflex motion is thus:



The physical reflex motion superadds the element of consciousness. A mechanical cause (say somebody receives a blow on his arm) produces a mechanical effect. This mechanical effect causes a physiological effect in the muscle and nerve tissues, which again is the cause of a psychological effect, as pain is felt. This psychological effect causes another psychological effect, which may result in a state of anger and desire for vengeance. This psychological effect again is the cause of a physiological effect. It acts on the motory nerves, which in their turn causes the motory muscles to contract and retaliate the blow. The blow returned is in this case the mechanical effect of the first mechanical cause, i. e. the blow received. The following diagram will explain it more fully:



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Rev. H. H. Higgins M. A. In Nos. 41 and 42.

Mr. Higgins says: "Evolutionists have to choose between discontinuity and the recognition of a universal principle of life, which may be regarded not as mechanical, but as inherent in the primordial atom." This idea underlies the theory of J. G. Vogt also. But Mr. Higgins attributes an individual *bläs*, or life-unit, to every atom, while Vogt postulates a continuous, contractile, elastic world-substance, wherein the atoms of modern chemistry are made to be centres of condensation. Mr. Higgins hypothesis endows each atom with an idiosyncrasy which comprehends all that determines its individuality and makes it what it is. The essay should be read in connection with a letter in No. 43 upon "The Origin of Life and the Problems of Memory."

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J. G. Vogt. .... In Nos. 29, 31 and 34.

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Nos. 22 and 23 contain a very eloquent article on "The Specific Energies of the Nervous System," by Dr. Ewald Hering, Professor of Physiology at the University of Prague. His useful additions to physiological science are enumerated in the *Encyclopaedia Britannica*, under the heading of "Physiology." Several pages of the *Encyclopaedia* are devoted to Dr. Hering. His discoveries make an era in physiological study, and we remind our readers of his learned and instructive essay on "Mem.ory," published in Nos. 6 and 7 of THE OPEN COURT.

Dr. Hering's article on the "Specific Energies of the Nervous System," while profound in argument and full of information in its details, is at the same time so simple in statement and so easily understood that the reading of it is a pleasure as well as a study. Such articles enable us to see farther into Nature than we formerly did, and they reveal to us that her "specific" work is much of it so delicate and fine that the most powerful microscope cannot make it visible to the material eye of man. Throughout the essay the following proposition is maintained: "The germs of each animal species possess an inherent and innate faculty, viz: a *specific energy* which directs its development in a manner characteristic to this animal and no other. Again, each single germ possesses an individual energy which, in addition to the normal features of its species, secures an individual character to its future development."

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## THE FOUNDING OF OUR RELIGIOUS FREEDOM.

BY MONCURE D. CONWAY.

"Diversity of worship has divided the human race into seventy-two nations. From among all their dogmas I have selected one—the Divine Love." So wrote the Persian, Omar Khëyam, seven centuries ago. Among the nations founded by and for dissent was New England. Unfortunately, however, the dogma it selected from past diversities was not the Divine Love,—but deified Wrath.

In the century of the liberal Persian poet his Moslem world suffered invasion and massacre from six millions of Christians, marching under the banner of a teacher who said, "Love your enemies." Those Moslems were, as they are to-day, all Christians. Their sole offense was that they did not believe Jesus the equal of God, (Allah or Eloah,—for they preserved the very name of the Creator in the Hebrew Scriptures).

The loving faith of Omar Khëyam had to wait long for a nation to be founded on it. But at length the time came.

In 1796, President Washington sent to the Senate, by which it was ratified, a treaty with Tripoli, of which the following is the eight article: "As the Government of the United States of America is not in any sense founded on the Christian Religion—as it has in itself no character of enmity against the laws, religion or tranquility of Mussulmans—and as the said States have never entered into any war or act of hostility against any Mahometan nation, it is declared by the parties that no pretext arising from religious opinions shall ever produce an interruption of the harmony existing between the two countries."

Thus was the seventh century of the first Crusade on the Moslem world celebrated by the first President of the American Republic by a solemn severance of the New World from the intolerant traditions of Christendom. To the historic sense, the American affirmation may appear as an obelisk brought from the ancient battlefield of sectarian States, that its barbarous inscriptions may be contrasted with the "harmony" established where creeds are disestablished. But this liberation was not reached without intervening American inscriptions on the historic pillar thus made by Washington into a national landmark. Among these, some, which have not hitherto

seen the light, appear in old manuscripts before me, and make clearer the brave story of religious liberty in the Republic.

A hundred and fifty years ago the Church of England in Virginia was a somewhat secular, fashionable institution; its clergy were men of the world, but in a good sense. My ancestor, Parson Moncure, of Overwharton parish,—probably a fair specimen,—preached practical sermons, played a perfect game of whist, and bequeathed to his many children slaves whose births and baptisms are registered along with those of the said children. Once, while this parson was enjoying his rubber, a vestry deputation came to request that he would pray for rain on Sunday. "I will pray," said the old gentleman, "but—I lead trumps—but it won't rain till the moon changes." This clergyman was George Washington's pastor, in his veracious cherry-tree days.

But in those days came out of the North the apostle of Presbyterianism, Samuel Davies. Under his flame the genius of Patrick Henry flowered. The Virginia government tried to arrest this apostolate. In 1748, the King's Attorney contended that the propaganda of dissent was illegal. Davies pleaded the Act of Toleration. The Attorney said that did not extend to Virginia. "Then neither does the Act of Uniformity," answered Davies. The question was taken to England, where Davies was sustained. From that hour the devouter spirits of the colonial church were drawn into Presbyterianism, and the English branch in Virginia began to wither, morally and spiritually. The work was completed by the Revolution. The English Church in Virginia was necessarily Tory; the Presbyterian naturally radical,—that is in politics; for theologically it was reviving the superstitions and fears of primitive man. Such was the situation when the revolutionary convention of 1776 met at Williamsburg, the ancient capitol of Virginia. But now it appeared that the English Church of the Colony—its puritan elements drawn off—had become heretical as well as worldly. This, as we shall see, had much to do with the foundation of religious liberty in Virginia, which became the chief corner-stone of that established by the national constitution.

Edmund Randolph, the youngest member of this Virginia convention,—at that time a deist, but after-



wards an Episcopalian,—has left a manuscript history from which may be gathered an impression of the religious elements surrounding that assembly, from which issued the first declaration of independence, and of human rights, and the first republican constitution. "The two sects (English Church and Presbyterian) were contrasted by some striking circumstances. The Presbyterian clergy were indefatigable. Not depending upon the dead letter of written sermons, they understood the mechanism of haranguing, and had often been whetted in dispute on religious liberty, so nearly allied to civil. Those of the Church of England were planted on glebes, with comfortable houses, decent salaries, some perquisites, and a species of rank which was not wholly destitute of unction. To him who acquitted himself of parochial functions these comforts were secured, whether he ever converted a deist or softened the pangs of a sinner. He never asked himself whether he was felt by his audience. To this charge of lukewarmness there were some shining exceptions, and there were even a few who did not hesitate to confront the consequences of a revolution which boded no stability to them. The dissenters, on the other hand, were fed and clothed only as they merited the gratitude of their congregations. A change or modification of the ancient regime carried no terrors to their imagination."

When one considers the present puritanical type of Virginia religion, it appears hardly credible that in the last century the established church, and its University at Williamsburg, had developed rationalistic and secular tendencies similar to those of the Broad Church in England. Such, it would appear, must be the natural evolution of a church requiring the support of all sorts and conditions of men, and independent of theological tribunals, as was the Colonial Church, whose only Bishop was a half mythical being in London. It depended on the arm of flesh, and made but little of the dogmatic arm; whereas ever since its disestablishment the Episcopal Church has steadily become orthodox and evangelical. Lord Dunmore, Governor of Virginia at the outbreak of revolution, if not a rationalist himself, was indifferent to the creeds. His court at Williamsburg was looked on as a centre of worldliness and irreligion by the dissenters and the devout churchmen. The freethinkers, or "deists," had no quarrel with the church, and when at length some great men arose resolved to liberate religion from state, or state from religion, they were generally supposed to be dissenters and zealots. The sixteenth article of the Bill of Rights, says Edmund Randolph (MS.), "unfettering the exercise of religion, was proposed by Mr. (Patrick) Henry. Coming from a gentleman who was supposed to be a dissenter, it caused an appeal to him whether it was designed as a prelude

to an attack on the established church, and he disdained such an object." Henry was then and to the end of his life a member of the Episcopal Church. So also was Madison, and, unlike his rationalistic relative, the Bishop, he was thoroughly orthodox. That a churchman should wage war against the establishment was incredible in his case also. "I was diverted yesterday," Randolph writes him, "by Mr. John Pierce, of James City, (the delegate) asking whether you had not become a Methodist. After I had recovered from my surprise, I inquired from whom the rumor sprang. His account in reply was nothing more than that it was a general report in James City. It will be no easy matter to impress on some of your friends that you have fastened yourself to any sect." (MS.)

Though the church was disestablished, membership of any other body was still regarded as belonging to 'a sect'; it would so have been regarded by Madison's father and mother (she had been Nelly Conway). But the popular instinct, which could not believe that the establishment originated the spirit of disestablishment, was right. For some unavowed reason James Madison, contrary to the custom of Virginia gentry, was not sent to William and Mary College, but to Princeton. It was a sign that the great college at Williamsburg had come under suspicion of the pious and orthodox country churchmen. Edmund Randolph (MS.) says that in early life he himself was a deist,—“made so by my confidence in some whom I revered, and by the labors of two of my preceptors, who, though of the ministry, poisoned me with books of infidelity.” The clergymen who taught at William and Mary during Randolph's time (1766—71) were Horrocks, Camm, Dixon, Johnson, Henley, Gwatkin: it would be interesting to know which of these were the deists in clerical clothing. In the reference to “some whom I revered,” must be included his father, John Randolph, King's Attorney, whose nomination (twice) by Lord Dunmore to the Board of Visitors of the College was successfully resisted by John (afterwards Governor) Page, on the ground that he did not possess “the disposition and character, moral and religious, which the charter and statutes of the college required.” A note which I have seen from Bishop Meade shows that it was the Attorney's rationalism which chiefly offended Page, whose devoutness caused him to be at one time proposed for the bishoprick which passed to Madison,—who represented the rationalistic wing of the College, of which he was so long president. I suppose also that among the deists whom young Edmund “revered” was his uncle, Peyton Randolph, whose will, now before me, opens with the words, “In the name of God, Amen,” but is without the usual expressions of Christian faith and hope. Chan-



cellor Wythe, too, and Jefferson might be included. Randolph speaks of their coming to his house on Sunday to play chess, a procedure which his young wife rebuked by not appearing in the room, with result that the incident was not repeated; but Randolph did become a churchman. While this was going on at Williamsburg, the soul of Samuel Davies was "marching on." His eloquence had kindled not only the religious nature of Patrick Henry, but that of James Madison, Sr., also. Neither of them left the old church, but carried a new spirit into it. Princeton had been consecrated by the last ministrations of Davies, who, as we have seen, had been the means of extorting from the King's Attorney (the as yet "unevolved" Peyton Randolph) extension of the Act of Toleration to Virginia.\* James Madison, Jr., was trained for Princeton by the parish clergyman, Thomas Martin (inmate of Montpelier); and for the political principles of Princeton, by the persecutions of the Baptists in the neighborhood of that paternal home in Orange County. The clergy were not the persecutors, but the old ecclesiastical laws compelled magistrates to take sides with the mobs pursuing these early "Salvationists." To Princeton then went young Madison, aged 18; and the course of American history was influenced by the incident. From Princeton he brought a touchstone of presbyterian manufacture, which a statesman with the prestige of relationship to Bishop Madison, and the evangelical spirit of Davies, was able to apply to the ecclesiastical edifice, from within, with fatal effect.

Only an eye of Princeton could have detected a germ of intolerance in the original article of the Bill of Rights, to secure "the fullest toleration." By striking out the equivocal word "toleration," Madison anticipated the principle of Thomas Paine: "Toleration is not the opposite of intolerance, but is the counterfeit of it. Both are despotisms. The one assumes to itself the right of withholding liberty of conscience, the other of granting it." The two articles may be here compared.

## THE ORIGINAL.

That religion or the duty we owe to our Creator, and the manner of discharging it, can be directed only by reason and conviction, not by force or violence: and therefore that all men should enjoy the fullest toleration in the exercise of religion, according to the dictates of conscience, unpunished and unrestrained by the magistrate unless, under color of religion, any man disturb the peace, happiness, and safety of society. And that it is the mutual duty of all to practice Christian forbearance, love, and charity towards each other.

## MADISON.

That religion, or the duty we owe to our Creator and the manner of discharging it, being under the direction of reason and religion only, not of violence or compulsion, all men are equally entitled to the full and free exercise of it, according to the dictates of conscience, and, therefore, that no man or class of men ought, on account of religion, to be invested with peculiar emoluments or privileges, nor subjected to any penalties or disabilities unless, under color of religion, the preservation of equal liberty and the existence of the State be manifestly endangered.

\* The completeness of the victory won by Dr. Samuel Davies finds a somewhat picturesque latter-day illustration in the fact that his lineal descendant is now the Bishop of Virginia, in whose Low Church apostolate, and stern attitude towards worldliness, his ancestor's spirit re-appears. This Bishop Whittle is also a descendant of Pocahontas.

The Convention was not ready for Madison's radicalism, and his amendment, amounting to instant and complete disestablishment, was pruned in Committee and finally adopted in the following shape:—"That religion, or the duty we owe to our Creator, and the manner of discharging it, can be directed only by reason and conviction, not by force or violence, and therefore all men are equally entitled to the free exercise of religion, according to the dictates of conscience, and that it is the duty of all to practice Christian forbearance, love and charity towards each other."

(To be continued.)

## HERBERT SPENCER ON THE ETHICS OF KANT.

(Concluded.)

Mr. Spencer interrupts his essay on the Ethics of Kant by a digression on Kant's conception of time and space. It would lead us too far at present if we would follow Mr. Spencer on this ground also. A comparison of Spencer's remarks on the subject with Kant's "Critique of Pure Reason" will show that Kant's view of space and time is different from that view which Mr. Spencer represents as the Kantian conception of time and space.

\* \* \*

In the Spencerian system of ethics, which is utilitarianism, the moral maxim or the idea of duty is not distinguished from the feeling of pleasure or pain that accompanies ethical thoughts and acts, and their consequences. This lack of distinction induces Mr. Spencer to consider man's pursuit of happiness as the basis of ethics. Accordingly the aim of ethics, he maintains, is not the performance of duty, not the realization of the good; to the utilitarian this is only the means. The end of ethics is the greatest happiness of the greatest number.

It is strange that Mr. Spencer's essay contains a passage which, although intended as a point of objection to Kant, is a corroboration of Kant's ethics, and a refutation of Mr. Spencer's own views. While denying the statement that "a cultivated reason, if applied with deliberate purpose to the enjoyment of life and happiness, will fail to produce true satisfaction," Mr. Spencer says:

"I assert that it is untrue on the strength of personal experiences. In the course of my life there have occurred many intervals, averaging a month each, in which the pursuit of happiness was the sole object, and in which happiness was successfully pursued. How successfully may be judged from the fact that I would gladly live over again each of those periods without change, an assertion which I certainly cannot make of any portions of my life spent in the daily discharge of duties."

This statement, if it proves anything, proves that happiness is one thing and duty is another; it proves that Kant's theory of ethics, which is based on the discharge of duty and not on the pursuit of happiness,



is correct, and that Mr. Spencer's theory which identifies duty with the pursuit of happiness, is wrong.

However, we must in this place express our opinion that Mr. Spencer's statement *cannot* be quite correct. The discharge of duty, unpleasant though the drudgery part of it may have been, was undoubtedly accompanied and followed by a certain satisfaction, which perhaps was less in quantity, but certainly higher in quality than the pleasure derived from the mere pursuit of happiness. And in the valuation of the intrinsic and of the moral worth of pleasures, the quality alone should be taken into consideration, not the quantity. In this sense only can an ethical hedonism or utilitarianism be acceptable. The man whose pleasures and pains are of a higher kind, of a nobler form, and of a better quality, is morally and generally the more evolved man. And then, the basis of ethics would be, not so much pleasure or happiness as the quality of pleasure or happiness; it would be an aspiration to evolve toward a higher plane of life, to shape our lives in nobler forms, and to enjoy nobler, greater, and more spiritual pleasures, or, as Kant says, "unceasing progress."

Mr. Spencer's assertion, if taken in the sense in which it stands, is a contradiction of his ethical theory. But even if Mr. Spencer had declared that the discharge of duty affords a kind of happiness or satisfaction, as it truly does, there would still remain a deep gap between his and Kant's ethics. Mr. Spencer reduces ethics to mere worldly prudence; he says that we must do the good in order to be happy, and for the sake of its utility, and Kant says we must do the good for the sake of the good. Mr. Spencer says:

"But now, supposing we accept Kant's statement in full, 'what is its implication? That happiness is the thing to be desired, and, in one way or another, the thing to be achieved.' \* \* \*

"An illustration will best show how the matter stands. To a 'tyro in archery the instructor says: 'Sir, you must not point your arrow directly at the target; if you do, you will inevitably miss it; you must aim high above the target, and you may then possibly pierce the bull's-eye.' What now is implied by the 'warning and the advice? Clearly that the purpose is to hit the target. Otherwise there is no sense in the remark that it will be missed if directly aimed at; and no sense in the remark that 'to be hit, something higher must be aimed at. Similarly with 'happiness. There is no sense in the remark that happiness will 'not be found if it is directly sought, unless happiness is a thing 'to be somehow or other obtained.' \* \* \*

"So that in this professed repudiation of happiness as an end, there lies the unavoidable implication that it is the end."

The pursuit of happiness is by no means repudiated by Kant as wrong or immoral; it is only maintained to be insufficient as a foundation of ethics. Kant's remark that happiness will not be found if it is directly sought has no reference to his own ethics. Kant, speaking from the standpoint of one who takes

the view of utilitarianism, says that if a cultivated reason applies itself to the sole purpose of enjoying life and happiness, it will meet with a failure.\*

Any other explanation of the moral *ought* than that from the Good Will, Kant declares to be *heteronomy*. Will would no longer be itself, and the principle of action would lie in something foreign to the will. Kant says:

"Will in such a case would not be a law to itself; but the object by its relation to the will would impose the law upon the will." \* \* \* This would admit of hypothetical imperatives only: 'I ought to do a certain thing, because I want something else.' The moral and therefore categorical imperative, on the contrary, says: 'I ought to act so or so, even if I had nothing else in view.' For instance: the hypothetical imperative of heteronomy says: 'I ought not to lie, if I ever wish to preserve my honor.' The categorical imperative says: 'I ought not to lie even if it would not in the least bring me to shame.'"

Mr. Spencer quotes the following passage from Kant:

"I omit here all actions which are already recognized as inconsistent with duty, although they may be useful for this or that purpose, for with these the question whether they are done *from duty* can not arise at all, since they even conflict with it. I also set aside those actions which really conform to duty, but to which men have no direct inclination, performing them because they are impelled thereto by some other inclination. For in this case we can readily distinguish whether the action which agrees with duty is done *from duty*, or from a selfish view. It is much harder to make this distinction when the action accords with duty, and the subject has besides a *direct inclination* to it. For example, it is always a matter of duty that a dealer should not overcharge an inexperienced purchaser, and wherever there is much commerce the prudent tradesman does not overcharge, but keeps a fixed price for every one, so that a child buys of him as well as any other. Men are thus *honestly* served; but this is not enough to make us believe that the tradesman has so acted from duty and from principles of honesty: his own advantage required it; it is out of the question in this case to suppose that he might besides have a direct inclination in favor of the buyers, so that, as it were, from love he should give no advantage to one over another [1]. Accordingly the action was done neither from duty nor from direct inclination, but merely with a selfish view.

"On the other hand, it is a duty to maintain one's life, and, in addition, every one has also a direct inclination to do so. But on this account the often anxious care which most men take for it has no intrinsic worth, and their maxim has no moral import. They preserve their life *as duty requires*, no doubt, but not *because duty requires*. On the other hand, if adversity and hopeless sorrow have completely taken away the relish for life; if the unfortunate one, strong in mind, indignant at his fate rather than desponding or dejected, wishes for death, and yet preserves his life without loving it—not from inclination or fear, but from duty—then his maxim has a moral worth.

"To be beneficent when we can is a duty; and besides this, there are many minds so sympathetically constituted that without any other motive of vanity or self-interest, they find a pleasure in spreading joy around them, and can take delight in the satisfaction of others so far as it is their own work. But

\*The passage referred to is quoted in full on page 1159, of THE OPEN COURT, N. 51.



I maintain that in such a case an action of this kind, however proper, however amiable it may be, has nevertheless no true moral worth, but is on a level with other inclinations" (pp. 17-19).

Kant's metaphysics of ethics is to practical ethics what pure mathematics is to applied mathematics, or what logic is to grammar. Kant's method of reasoning in *abstracto* everywhere shows the mathematical bent of his mind. In a foot-note (Editio Hartenstein, IV), p. 258, he says:

"As pure mathematics is distinguished from applied mathematics and pure logic from applied logic, so may the pure philosophy (the metaphysics) of ethics be distinguished from the applied philosophy of ethics, that is, as applied to human nature. By this distinction of terms it at once appears that ethical principles are not based upon the peculiarities of human nature but that they must be existent by themselves *a priori*,—whence, for human nature, just as well as for any rational nature, practical rules can be derived."

Schleiermacher says:

"A good is any agreement ('unity') of definite sides [certain aspects] of reason and nature. \* \* \* The end of ethical praxis is the highest good, *i. e.*, the sum of all unions of nature and reason. \* \* \* The moral law may be compared to the algebraic formula which (in analytical geometry) determines the course [path] of a curve; the highest good may be compared to the curve itself, and virtue, or moral power, to an instrument arranged for the purpose of constructing the curve according to the formula." (Quoted from a translation of Ueberweg.)

Kant declares in other passages that in examples taken from practical life, it will be difficult to separate clearly and unmistakably the sense of duty as the real moral motive from other motives, inclinations, habits, etc. But such a distinction must be made, if the moral value of motives is to be considered in *abstracto*. This is necessary for a clear conception of the essential features of morality. Mr. Spencer has on other occasions highly praised the power of generalization, which indeed is fundamentally the same faculty, as thinking in *abstracto*; here, however, he does not follow Kant's argument, but declares "that the assumed distinction between sense of duty and inclination is untenable." He says:

"The very expression *sense* of duty implies that the mental state signified is a feeling; and if a feeling it must, like other feelings, be gratified by acts of one kind and offended by acts of an opposite kind. If we take the name conscience, which is equivalent to sense of duty, we see the same thing. The common expressions 'a tender conscience,' 'a seared conscience,' indicate the perception that conscience is a feeling—a feeling which has its satisfactions and dissatisfactions, and which inclines a man to acts which yield the one and avoid the other—produces an inclination." (p. 476).

It is quite true that every state of consciousness is a feeling, but we can and must discriminate between consciousness or feeling and the idea or thought which becomes conscious, in which the feeling appears, and which is, so to speak, the special form of a certain

feeling. The consciousness and its special form, the feeling and the mental object of feeling, are in reality one and the same. Yet they are different and must in *abstracto* be well distinguished. Mr. Spencer's method is that of generalization, but generalizing can lead to no satisfactory results, if it is not constantly accompanied by discrimination. We must generalize and discriminate.

If a certain group of states of consciousness takes the form of a logical syllogism, it must not be expected that logic will find its explanation in feeling, although it cannot be denied that all the states of consciousness are feelings. Not the feeling in this case is to be explained, but logic. In our generalizations we must discriminate in *abstracto* between the feeling and the idea which feels. We must positively abstract from feeling and cannot consider whether the feeling of logical arguments is pleasant or unpleasant. Mr. Spencer's method of explaining ethics, if applied to logic, would be as follows: "Man's logical sense is a very complex feeling and has developed from simple percepts such as can be observed in the lowest animals; percepts are a higher evolved form of reactions against irritations such as take place in protoplasm. The old method of explaining logic is that of deduction, modern logic will be inductive. Formerly pure logic was considered as a science *a priori*; but the evolution-philosophy shows that logic is developed by steps, it appears *a priori* to the individual now, but it is in reality a consolidated product of multitudinous experiences received mainly by ancestors and added to by self. Logical sense accordingly finds its explanation in most simple feelings. Our conceptions of logically incorrect feelings will be more and more avoided because they will ultimately be found to be unpleasant; logical correctness is striven for because of the feeling of satisfaction that accompanies the conception of a logically correct conclusion."

Sense is feeling, there can be no doubt. Logical sense and mathematical sense are feelings and if a person thinks a mathematical axiom or a logical syllogism or an ethical maxim, he has a feeling. Logical sense of reason is the product of evolution, and it cannot be denied either that one man has a more logical or mathematical or moral sense<sup>\*</sup> than another. But it

\* Mr. Spencer adduces the following quotations in evidence for his assertion that conscience (or sense of duty) varies among the different races:

"In fact, I believe that the lower races of men may be said to be deficient in the idea of right.... That there should be any races of men so deficient in moral feeling, was altogether opposed to the preconceived ideas with which I commenced the study of savage life, and I have arrived at the conviction by slow degrees, and even with reluctance."—Lubbock, *Origin of Civilization*, 1882, pp. 404, 405.

"But now let us look at the evidence from which this impression is derived, as we find it in the testimonies of travelers and missionaries."



does not follow that an explanation of mathematics, or logic, or ethics, must be derived from feeling

Praising his deceased son, Tui Thakau, a Fijian Chief, concluded "by speaking of his daring spirit and consummate cruelty, as he could kill his own wives if they offended him, and eat them afterwards."—*Western Pacific*. J. E. BASKIN, p. 248.

"Shedding of blood is to him no crime, but a glory... to be somehow an acknowledged murderer is the object of the Fijian's restless ambition."—*Fiji and the Fijians*. REV. T. WILLIAMS, I, p. 112.

"It is a melancholy fact that when they [the Zulu boys] have arrived at a very early age, should their mothers attempt to chastise them, such is the law, that these lads are at the moment allowed to kill their mothers."—*Travels and Adventures in Southern Africa*. G. THOMPSON, II, p. 418.

"Murder, adultery, thievery, and all other such like crimes, are here [Gold Coast] accounted no sins."—*Description of the Coast of Guinea*. W. BOSMAN, p. 130.

"The accusing conscience is unknown to him [the East African]. His only fear after committing a treacherous murder is that of being haunted by the angry ghost of the dead."—*Lake Regions of Central Africa*. R. F. BURTON, II, p. 336.

"I never could make them [East Africans] understand the existence of good principle."—*The Allot Nyanza*. S. W. BAKER, I, p. 241.

"The Damaras kill useless and worn-out people: even sons smother their sick fathers."—*Narrative of an Explorer in Tropical South Africa*. F. GALTON, p. 112.

"The Damaras 'seem to have no perceptible notion of right and wrong.'"—*Ibid.*, p. 72.

Mr. Spencer adds:

"Against these we may set some converse facts. At the other extreme we have a few Eastern tribes—pagans they are called—who practice the virtues which Western nations—Christians they are called—do but teach. While Europeans thirst for blood revenge in much the same way as the lowest savages, there are some simple people of the Indian Hills, as the Lepchas, who 'are singularly forgiving of injuries;\*' and Campbell exemplifies 'the effect of a very strong sense of duty† on one of these savages.' That character which the creed of Christendom is supposed to foster, is exhibited in high degree by the Arafuras (Papuan) who live in 'peace and brotherly love with one another'‡ to such extent that government is but normal. And 'concerning various of the Indian Hill-tribes, as the Santals, Sowahs, Marias, Lepchas, Bodo and Dhimals, different observers testify of them severally that 'they were the most truthful set of men I ever met,§ 'crime and criminal officers are 'almost unknown,¶ 'a pleasing feature in their character is their 'complete truthfulness,|| 'they bear a singular character for 'truthfulness and honesty,\*\* they are 'wonderfully honest,†† 'honest and truthful in deed and word.‡‡ Irrespective of race, 'we find these traits in men who are, and have long been, absolutely peaceful (the uniform antecedent); be they the Jakuns of 'the South Malayan Peninsula, who 'are never known to steal 'anything, not even the most insignificant trifle,§§ or he it in the 'Hos of the Himalaya, among whom 'a reflection on a man's 'honesty or veracity may be sufficient to send him to self-destruction.¶¶ So that in respect of conscience these uncivilized 'people are superior to average Europeans, as average Europeans 'are superior to the brutal savages previously described."

\* Campbell in "Journal of the Ethnological Society," N. S., vol. I, p. 150.

† *Ibid.*, p. 154.

‡ Dr. H. Kolff. "Voyages of the Dutch brig 'Dourga.'" Earl's translation, pp. 161, 163.

§ W. W. Hunter. "Annals of Rural Bengal," p. 248.

|| *Ibid.*, p. 217.

¶ Dr. J. Shortt. "Hillranges of Southern India," pt. III, p. 38.

\*\* Glasford in "Selections from the Records of Government of India" (Foreign Department), No. xxxix, p. 41.

†† Campbell in "Journal of the Ethnological Society," N. S., vol. I, 1869, p. 150.

‡‡ B. H. Hodgson in "Journal of the Asiatic Society of Bengal," xviii, p. 745.

§§ Rev. P. Favre in "Journal of the Indian Archipelago," II, p. 266.

|| Col. E. T. Dalton. "Descriptive Ethnology of Bengal," p. 206.

pleasure and pain, or happiness. On the contrary we must abstract from feeling altogether and concern ourselves with the object of feeling only, which is the idea or the special form in which and as which feeling appears. States of consciousness (never mind whether they are painful or pleasurable) must be considered as moral if their mental object, *i. e.*, the idea, the thought, the motive, the form in which feeling becomes manifest, is in harmony with the universal order of things.

Mr. Spencer declares that the world would be intolerable "if Kant's conception of moral worth were displayed universally in men's acts." And it must be acknowledged that Kant's ethics in their logical and irrefutable rigidity not only impressed the literary world of his time with the grandeur and sublimity of ethics; Kant's ethics also astounded, and overwhelmed his readers with awe. Virtue no longer appeared to be the fervid enthusiasm of sentiments; it congealed into the cold idea of duty which can be fixed in abstract rules and will operate like the correctly calculated gear of a machine. Objections have been raised by some of Kant's own disciples; but it must be known that the Kantian view of ethics does not suppress feelings, emotions and inclinations, it excludes them only from an estimation of the moral worth of actions. Kant gave the *coup de grace* to all sentimentality which had taken the lead in ethical questions too long. Mr. Spencer says:

"If those acts only have moral worth which are done from 'a sense of duty \* \* \* we must say that a man's moral 'worth is greater in proportion as the strength of his sense of 'duty is such that he does the right thing not only apart from 'inclination but against inclination. According to Kant, then, 'the most moral man is the man \* \* \* who says of another 'that which is true though he would like to injure him by a false 'hood; who lends money to his brother though he would prefer to 'see him in distress."

Schiller, although an admirer of Kant, makes in his *Xenions* a similar objection to this corollary of the ethics of pure reason. He says:

"Willingly serve I my friends; but 'tis ploy, I do it with pleasure.

And I am really vexed, that there's no virtue in me!"

And he answers in a second distich:

"There is no other advice than that you try to despise friends,

And, with disgust, you will do what such a duty demands."

The difficulty is removed under the following consideration: A man with good inclinations is less exposed to temptation than a man with bad inclinations. If both act morally under conditions otherwise the same, the latter has shown greater strength of moral purpose than the former. The former's character (*viz.*, his inherited inclinations and habits which represent the sum total of the moral energies of his ancestors,) is more moral than that of the latter. But the latter deserves more credit than the former for overcoming the temptation; he has in this special act shown more moral strength of will than his more fortunate



and morally higher advanced fellow-man. To those who have accepted the Kantian view, Mr. Spencer's and Schiller's objection can serve as a warning, not to lose sight of emotions altogether. Man is not only a reasonable being, he is at the same time a feeling creature. The instinctive faculties of man, the so-called subconscious states, are the basis of his consciousness. They form the roots of his soul from which spring the clear conceptions of his reason. The more man's habits and inclinations agree with morals, the more strength of purpose is left for further ethical advancement and moral progress.

Similar objections have also been made to Kant's mechanical explanation of the origin of the planetary systems and milky ways. It seemed as if the divinity of nature were replaced by the rigid law of gravity. In his poem "The Gods of Greece," Schiller complains:

"Fühlos selbst für ihres Künstlers Ehre,  
Gleich dem toten Schlag der Pendeluhr,  
Dient sie knechtisch dem Gesetz der Schwere,  
Die entgötterte Natur."

"Dead even to her Master's praise,  
Like lifeless pendulum's vibration,  
Lo, godless Nature now obeys,  
Slave-like, the law of gravitation." \*

Such objections are always raised when a scientific explanation destroys the mystic view that a spirit or at least something unexplainable is the supposed cause of certain phenomena. Our sentiments are so closely connected and intimately interwoven with our errors that truth appears hostile to sentiment, and it becomes difficult to part with errors sanctified by emotion. Sentimentality always complains that clear thought is an enemy of romanticism, and romanticism is the only possible poetry to the taste of the sentimental.

Now it cannot be denied that a one-sided knowledge not only appears rigid, it truly *is* so, and will be destructive of such emotions as reverence, awe, aesthetic taste, religion and art. Criticism is a most essential feature of science and philosophy, and how negative, how desolate and melancholy appear the results of criticism! But the pruning process of criticism is very wholesome, and true science will only profit by discarding the vagueness of indistinct conceptions. Alpine lakes that are really deep can only gain by lucidity. Thus the clearness of genuine science and broad philosophy will only show the depth of truth into which by all its lucidity our emotions can plunge without ever finding it shallow or fathoming it in all its profundity.

Kant's doctrine of ethics is a truth that can stand the severest test.

Ethics, in the sense of the word as used by Kant,

can be found in man only, in so far as he is a reasonable being. A truly reasonable being does not allow himself to be guided by impulses but is led by maxims. Inclinations and habits are remnants of instinct. Not he who in instinctive good-naturedness acts morally, is the ethical man, but he who deliberately and consciously considers himself a representative of the general order of things. The man, who adopts such maxims as can become universal principles, identifies his will with the laws of the universe. Man's moral dignity must not be sought in vague feelings or in instinctive inspirations; it is based upon his reason and is developed in so far only as he makes use of his reason.

#### HAPPINESS AND ETHICS.

BY E. C. HEGELER.

Taking an especial interest in Mr. Spencer's Criticism of Kant's Ethics, and the Editorial in reference thereto, I here again present the following ideas:

Occurrences in man's life, some of them accompanied with pain, and others with pleasure, contribute to his higher evolution. From this fact we may conclude that the proportion of pleasure and pain will be such as will accompany man's greatest progress; for those nations only will survive which remain at the head of civilization. Therefore, pleasure and pain in the higher man of the future will in quantity probably be proportioned as now; but their form, their quality, will change.

A certain quantity of a more evolved quality of happiness will probably be accompanied by a corresponding quantity of a more evolved quality of unhappiness.

If a nation does not act in accordance with the ethics of progress or evolution, but with an ethics of perfection or completeness, (while it may experience the greatest quantity of happiness), it will remain behind, as the animal species and those human races which no longer progress, or it will perish entirely.

A nation may be imagined to have as its ethics rules of conduct aiming at a more animal state of existence, bringing with it a proportionately larger quantity of happiness. Its conduct would conflict with that of the All (the whole Reality) here on earth, which is the standard of true Ethics; and, therefore, its rules of conduct would be bad. Such a nation will soon perish, and with it its erroneous ethics.

Whether life is worth living—which saying Mr. Spencer prominently quotes in deducing his theory of ethics in his Data of Ethics—is a question we cannot ask, as it is beyond our control. If civilized life does not continue, savage life, or even the life of brutes, will take its place. As long as the sun shines upon our earth under similar conditions as now, so long the same quantity of life will apparently continue upon its surface.

\* Slightly altered from B. W. BALL's translation in THE OPEN COURT, p. 83.



## CORRESPONDENCE.

## A MEETING WITH THE TRANSCENDENTAL PHILOSOPHER OF NEW ENGLAND.

CHICAGO, August 3, 1888.

*To the Editor of THE OPEN COURT:—*

Reading in the current number of *THE OPEN COURT* Mrs. Edna D. Cheney's "Reminiscences of Mr. Alcott's Conversations," I am tempted to present you with another reminiscence of that amiable philosopher and venerable man. I once lured him into an ambuscade, and thereby defeated a conversation, if I get the name of it right. Only through the merits of a full confession can my soul be freed from its burthen of remorse, and I make the confession here. The way of it was this: I had been invited by my friend the chief justice of—Hesperia, to dine with him, and to meet Mr. Alcott, who at that time was the guest of the chief justice. A select company of a dozen or so had been invited also, and the arrangement was that we should go an hour and a half before dinner, and during that hour and a half Mr. Alcott would enlighten us with a parlor talk, or lecture. Going along the street I made a threat that greatly shocked and alarmed Mrs. Wheelbarrow; "I will smash that conversation; there shall be no feast of reason and no flow of soul before dinner; my gorge rises at it!"

"Is it not so nominated in the bond?"

"I care not; the condition is unconstitutional and void. Mr. Alcott is profound in parlor speech, but you shall hear a more effective talker ere the sun goes down."

"To whom do you refer?"

"Modesty forbids me here to speak his name."

"The sun is in the heaven, and the proud day,  
Attended with the pleasures of the world  
Is all too wanton and too full of gauds,  
To give me audience."

"But I will smash that con-ver-zat-see-o-nee. After dinner it may help digestion; before dinner it is a servant of dyspepsia."

We were all seated in the front parlor without any particular order, although Mr. Alcott's chair very properly expressed the head of the room, when the lady chief justice entered and took a seat. She was chiefier than the chief in some things, a woman not without celebrity in this land, and one much admired by Mr. Alcott. Her entrance was a sign for us to "come to attention," and while some of the company were placing their chairs, the sage made some casual remark.

"Which reminds me," I said, "of an incident that came under my own observation at the battle of Shiloh." I saw an electric spark flash in the philosopher's eyes, and I knew my hook was baited right. "We were lying down behind the rail fence, and—"

"Were you at Shiloh?" he enquired in an interested way.

"Yes, and our regiment was crouching down behind the fence; for instance, as it might be along here; while over there on the other side of the field, as it might be across the room;" and so on, describing to him the rebel yell, the answering hurrah, the charge of the gray across the farm, the repulse by the blue, the winnows of dead men reaped upon that wheatfield. The whole story heightened by a theory of my own about Sydney Johnstone's death. Whenever the fire in the story smouldered a little, the old man revived it again by a question. It had a weird fascination for him. He had never drank blood, and the flavor of it was like the fumes of wine upon his brain. I held him with my glittering eye, while he heard my loud bazzoo. The chief justice threw his right leg over the left, and then he threw his left leg over the right. He was impatient that I monopolized his principal guest, whose wisdom, and not my camp fire anecdotes, the company had been invited to hear. I affected not to notice the nervous disquiet of the chief justice.

It was like talking to a curious child; and the sage kept on trading me old lamps for new ones. He knew all about Thermopylae and Marathon, and Arbela, and Ippus, of which I knew nothing, while I knew all about Shiloh, and Corinth, and Vicksburg, of which he knew nothing; and he listened as eagerly to me as I would listen to a revived mummy telling me all about the battle of Cheronæa. Mr. Alcott knew Socrates and Plato, and Hannibal and Alexander, but Grant and Sherman were almost as mythical to him as Romulus and Remus. He dropped a remark about Xenophon which gave me a new start, and the excited philosopher listened eagerly when I began to explain that Xenophon's march to the sea, was different from that of Sherman, "because don't you see when Sherman cut loose from Atlanta,—"

The chief justice got up from his chair, and walked into the other room, and back again. I pretended not to see this bit of impatience, neither did I see it when he repeated the performance over and over again. I know it was all very wicked on my part but on I went and the more I talked to Mr. Alcott about "the battles, sieges, fortunes, that I had passed," the lower down he bent his face to listen to me and like a snow crowned venerable Desdemona, he did "with greedy ear devour up my discourse." The time passed rapidly away, and the conversation from long waiting was almost cold, but so long as he kept me spurred with questions I could not stop, neither could the chief justice prevent his venerable guest from asking them. "The charge of the French across the bridge of Lodi was not so difficult nor so dangerous as the charge of our brigade across the bridge at the—"

"Dinner's ready," said the servant. The time was up, the conversation was broken into a dozen pieces.

We all proceeded to the dining room. My place was next to Mr. Alcott; "As I was remarking, when interrupted by the announcement of dinner, "the charge of the French across the bridge of Lodi."

"There, we have had enough of that," said Mrs. Wheelbarrow, "we have come to listen to Mr. Alcott, we can hear you at any time."

"Yes," said the old man, "but I can not."

My victory was complete, and I yielded him the floor.

Very respectfully yours,

WHEELBARROW.

## THE MORAL ARGUMENT FOR GOD'S EXISTENCE.

(TWO LETTERS IN ANSWER TO MR. BARR FERREE.)

*To the Editor of THE OPEN COURT:—*

The article by Barr Ferree in No. 50, of *THE OPEN COURT*, is a typical instance of the way that men really accomplished and astute, will run into vagaries when they attempt to solve problems with insufficient and inapt data. The entire argument depends upon a set of postulates of a quality very far from axiomatic. It starts from that old pitfall, the metaphor "chain" or "series" of causes. Mathematical series are useless for any such purpose as that for which Mr. Ferree uses them. The limitation of our faculties compels us to confine our attention to a small part only of the entire complex of phenomena, and in the chain of causes and effects our selection is largely arbitrary.

It is this so largely arbitrary "chain of causes" that alone suggests and makes current the notion of an ultimate or First Cause. Causation being conceived as a linear sequence in time, we look for an antecedent extremity. (Why not also a consequent extremity?) But if this "chain of causes" is a mere figment, as it really is in spite of the fact of its convenience, and perhaps necessity in man's mental economy, what becomes of this notion of a First or Ultimate Cause? Is it not utterly dissipated? Can any analogue be suggested for substitution in its place, based on the true notion of causation? Let Mr. Ferree try



his hand in this direction. It seems to me that causation is insignificant in the theistic problem.

In early English orthography God was spelled Good. Good certainly exists, and if one is led to believe with all his heart, soul and strength, that Good is the sovereign principle of existence, that progressively and indefinitely "somehow good will be the final goal of ill," he will find his highest intellectual exercises distracted, his best aspirations balked and his will inconstant, if he denies himself the benefit of some such conception as that of God.

In defect of known law and pending its discovery or demonstration, scientific men avail themselves of those theories most apt and fruitful for their ends as working hypotheses, and have found them of indispensable use, and of the greatest value in the promotion of science. Now, considered as a working hypothesis, merely the notion of God is of the highest use. It fixes the ideas, supplies a felt need for an object for the emotions and aspirations, and tends to vigor and steadiness in the exercise of the will.

Even in the ordinary exigencies of expression, to what awkward synonyms, circumlocutions, and cumbersome, labored, and obscure make-shifts, are those driven who harbor a foolish antipathy towards the notion of a personal God. Their minds are inveterately full of ideas, proper only to an universal order, of which such a being is a constituent. They talk of the aims of Nature, the purposes of the universe, "the power, not ourselves, that makes for righteousness," and the like. How much easier and more natural to say God, his aims and purposes, his goodness, mercy and love, or even his indifference, injustice, or cruelty.

Again, does not the very possibility of Moral Science depend upon the presumption of the being of some existence analogous to a personal God, some fact exercising aim and power. Good and evil are either the arbitrary or conventional creation of man, in which case moral science is impossible, or they are expressions issuing out of the facts of the universal order. The evolution of the universal order is either fortuitous or systematic. If fortuitous, then moral science is impossible. Now, a moral science, dealing with the good and evil, manifested and suggested by a universe systematically evolving, must, in order to be a science, take account not only of all tendencies subordinate, but must project its prevision to the limits of its power, and discover some, for the time being, most general and inclusive tendency; and, furthermore, it must suppose beyond and beyond, more and still more general tendencies, although as yet inconceivable.

For such a study, the notion of an exertion exercising aim and power is absolutely indispensable. There is rigorously nothing to supply its place. If there is no aim, then the evolution of man's nature is incongruous with the evolution of the universe. There is no general aim for him to subserve. He is deluded in supposing that *ought* has any other meaning but expediency, and that expediency even has any meaning not arbitrarily imposed. The indispensable reference which alone can make morality scientific, is an ultimate aim or purpose to be subserved by conduct.

Besides, under a discipline imposed by the study of morals as a science, it is mentally and morally impossible to regard the universal order as merely mechanical, or with emotional indifference, and mental and emotional lucidity can be attained only by the supposition of an existence exercising aim and power.

Truly, as Voltaire said, if God did not exist, man would be compelled to invent him.

It is this moral necessity and convenience which constitutes the valid and ample warrant for supposing the existence of God, and there is no other warrant that can begin to compete with it.

The acceptance of God as a working hypothesis, or even as demonstrated truth, carries with it not the least implication in favor of any one of the formulated expressions of Deity.

It does not in the least prevent one who affirms, say, "My God is The Good," or "The Unknowable," or whatever else he may term it, from denouncing as an impostor Jove, or Zeus, or Allah, or Jahveh, as the adherents of this last did in times past denounce Bel and others as false gods.

Let us then, in the interest of mental and moral economy, eschew all absurd theophobia and express that which is really necessary to be named, and which we find ourselves constantly intending by its altogether most apt and useful denomination—God.

FRANCIS C. RUSSELL.

DESHLER, O., Aug. 13, 1888.

To the Editor of THE OPEN COURT:—

Allow me to say that in Mr. Barr Ferree's reasoning in No. 50, the fundamental error is the assumption of the first quantity in an infinite series ascending from a known term. This of course constitutes the series finite, and on his reasoning brings God, the infinite, within finite grasp.

If the series be infinite, "there was no beginning and can be no end," in time, or within the possibilities of our cognition. Our attempt to grasp the Absolute or "by reasoning to find out God," is necessarily vain. This the author admits when he says the first cause "is absolutely and infinitely different" from all known causes.

This error is old. Theologians speak of the absolute character of God, his eternity, immensity, etc., and then go on to speak of his moral government as a continued series of interferences with creatures,—a struggle with adverse free wills, thus nullifying all they teach or claim to teach about the being of God.

When we call the All (as I think rightly) God, we substantially declare that he is the substance, the consistency of All, the centre and source of individualities, the Unity of all. Our love and faith reaches beyond our knowledge, and we rest in the infinite power.

J. B. DUNN.

#### MAX MÜLLER'S THREE LECTURES ON "THE SCIENCE OF THOUGHT."

VINEYARD HAVEN, MASS., Aug. 3, 1888.

To the Editor of THE OPEN COURT:—

I brought the "Three Introductory Lectures on the Science of Thought" that you were so kind as to send me, along to read during vacation; I have read them with great interest. They are very suggestive, and I think his positions are generally well taken. All higher thought tends to unity, and hence to simplicity; but so far in the culture of our world it has been only the privileged few who could stand at the centres and see the one becoming the many, and the simple enlarging to the complex. Such lectures as these, however, tend to open the way of such visions, partly at least, to the many.

H. W. THOMAS.

#### THE ANÆSTHETIC REVELATION.

To the Editor of THE OPEN COURT:—

Mr. Clark is right in inferring that I have not "made the experiment with sulphuric ether." Even were there no considerations of health to prevent me from so doing, I think I should elect to remain under "some disadvantage" in this respect, since I can hardly be induced to anticipate a solution of the mystery of being from the simple method of getting drunk on gas. Neither can I see the peril of endeavoring to limit psychology within that domain of investigation specified, not by myself but by Mr. Lewes, inasmuch as no danger ought rationally to be apprehended from our limiting it thus,—that is, within the recognized boundaries of science,—and in so doing rendering it improbable that the human race will ever be so revolutionized as to exalt diseased cerebration above the normal, or, in other words, to invert and transpose the *mens sana* and the *mens insana*. While I have no desire,—as of



course I have not the power,—to compel psychologists to accept even the dicta upon which philosophers may be said to be agreed, I may add that one such dictum, (conclusion, or conviction would be the better word,) as expressed by Spencer,\* is that human intelligence is incapable of absolute knowledge." Whether Relativist or Absolutist, Gnostic or Agnostic, we ought to be able to establish our beliefs upon a rational foundation by purely rational means. The poet complains—

*Ut nemo in sese tentat descendere—nemo!*

and others besides Sir William Hamilton have used the passage against those who are apparently unwilling or unprepared to examine their own consciousness with the view of determining the nature and limits of their cognitions. It seems to me, however, that in the hyperaesthesia alluded to, the material organ whose function it is to cerebrate, or perhaps as Mr. Clark would express it, to make mental apprehensions,—is temporarily so deranged as to render uniform mental action (normal cerebation) impossible. With the utmost respect for every inquirer into the so-called mysteries of nature and of human nature, I must re-affirm that in this matter of mind-observation the appeal is "from Philip drunk to Philip sober."

Permit me a few words more with regard to Idealism, the arguments for which, as Mr. Clark says, "appear conclusive," or, as Lewes acknowledges, are incontrovertible. Briefly expressed, its thesis is that man only knows his own individuality in its subjective-objective phasis. Hylo-Idealism, however, completely reverses Berkeley's visionary position because,—as I intimated in the first letter under the above heading,—it identifies Idealism with Materialism when it proves that the highest and most abstract production of our ideation is nothing more than an expression of the ideating tissue, the *vesiculo-neurine*, the only noumenon, of which everything perceptible or conceivable by man is a creation. In the last or ultimate analysis there will be found only one entity in nature,—an entity which by virtue of its own potentiality makes for itself every idea or phase of the so-called objective, and which created alike the demon of the savage and the *Anima Mundi* of the transcendentalist.

M. C. O'BRYNE.

#### THE LOST MANUSCRIPT.†

BY GUSTAV FREYTAG.

#### CHAPTER XXII.—Continued.

The party had broken up and most of the guests had departed before the Prince gained an opportunity of speaking to Ilse without restraint.

"Just wait," thought Ilse; "you shall not escape the road."

"Have you heard from your father?" inquired the Prince, a question by which he frequently began the conversation.

"My news is not good," replied Ilse; "only think, your Highness, one of our horses has broken his leg. It was a grey which we raised ourselves, a good gentle creature, which I have often ridden, though my father did not much like my doing so. Then I must tell your Highness, the road that leads to the great market-town, to which my father every year sends his grain, is terribly bad, and the Government does nothing to improve it. For ten years the matter has been agitated, but nothing comes of it. If your Highness

could help to obtain a good road for us, I beg of you to do so; it will be a benefit to the whole district."

The Prince looked at her kindly, and said, with embarrassment:

"It is an affair of the Government, I believe my father knows nothing of it."

"I am convinced of that," replied Ilse; "the gentlemen of the Government have always reasons for doing nothing; they understand how to make difficulties, and pretend they have no money."

The Chamberlain approached, and as the conversation had taken an uncomfortable political turn, the Prince quickly retreated, bowing and smiling, with these words:

"Let us hope for the best."

Ilse, on going home, said to her husband:

"Felix, I spoke to him about the road; he is a good youth, but in society he uses only formal speeches."

Fortune would have it that some weeks after, the State Councillor, who held the chief administrative office at Rossau, came to the University, visited the Chamberlain, and was introduced by him to the Prince. He was invited to dinner, and the Prince showed uncommon interest in the condition of the district in question; he inquired about the estates in the neighborhood and their proprietors; and, at last, when standing alone by the window with the Councillor, drinking his coffee, said:

"How is it that there is no good road in the district? Could not you do something about it?"

The official duly enumerated the difficulties. At last the Prince replied:

"Yes, I know there are plenty of reasons; but I shall be obliged to you if you will give yourself the trouble of taking the matter in hand."

Much impressed with these words, the Rossau official returned home. He revolved them in his troubled mind for three days, and the more he thought of them the more important they seemed; his own future might depend upon the result. At last he came to the conclusion that an extraordinary exertion was necessary; he therefore went at once to the seat of Government and laid the whole case, and a large bundle of dusty records concerning the road, before the minister. The minister thanked him for his communication, and was also of opinion that this was an incident which it would be prudent to make known to his Most Serene Highness. When he had concluded his report on state affairs, he mentioned that in the district of Rossau complaints had been made of the bad condition of the roads, and that a strong desire had been expressed for a new road, and the Hereditary Prince had shown a lively interest in the matter. The Prince rose hastily from his seat.

\* "First Principles," Second Ed., Part I, Chap. IV, Sec. 22.

† Translation copyrighted.



"The Hereditary Prince? What does that mean? It is very satisfactory to me to find that my son takes an interest in the condition of the country," he added. "I will take the affair into consideration."

The same day a letter was written by the Prince himself to the Chamberlain, saying:

"How comes the Hereditary Prince to take an interest in the building of a new road at Rossau? I desire further information."

The Chamberlain was in great perplexity, and felt his position endangered by the secret. At last, placed in a position between father and son, he chose the path of frank disclosure to the rising sun, and acquainted the Prince with his father's question.

"You see what importance his Serene Highness attaches to the communication; the details must be imparted to him."

The Prince was equally confounded.

"It was only a word thrown out casually," he rejoined, with hesitation.

"So much the better," said the Chamberlain; "all that remains to be said is, what gave rise to your Highness's wish. It may naturally seem strange to the Prince that his subjects or magistrates should apply to your Highness instead of to him. This, so far as I know, does not seem to have been the case."

"No," replied the Prince, "I heard of it at the house of the Rector. I simply asked the Councillor about it when he was here. I wanted to be able to give an answer," he added, shrewdly.

The Chamberlain was satisfied, and in his report extolled the Professor and Ilse, at whose house it was very pleasant to visit, and he did not fail to observe that the Hereditary Prince enjoyed calling there. He was rejoiced when, a few days after, a communication was made on business by the Cabinet Secretary, and followed by a letter from the Sovereign himself, in which he expressed his great satisfaction in the conduct of the Hereditary Prince and the Chamberlain.

Ilse was equally rejoiced when her father wrote to her:

"Ilse, are you a witch? An order has been given to begin building the road immediately; the surveyor is already here to mark it out."

At dinner Ilse took the letter out of her pocket with great delight, saying:

"Read, you incredulous man, and see what our little Prince has been able to accomplish; after all we did him injustice. My poor gray excited his pity, and he wrote everything to his dear father."

The next time that Ilse met the Hereditary Prince, she began, after the first greeting, in a low voice:

"My home owes warm thanks to your Highness, who has had the kindness to exert yourself for our road."

"Is it to be built?" asked the Prince, surprised.

"Does not your Highness know it? Your intercession has induced his Grace, your father, to have it made."

"My intercession would have had little effect," continued the Prince. "No, no," he added, earnestly disowning it. "I did not write to my father. It was altogether his own decision."

Ilse remained silent: she could not understand what should prevent the son of a Prince from openly laying before his father a request on a matter of business, the fulfillment of which would be beneficial to many; that he should disown all participation in what he had evidently done, appeared to her a quite inappropriate display of modesty.

The last letter from Court had confirmed the Chamberlain in his opinion that the intimacy of the Hereditary Prince in the Rector's house was not distasteful to his father. He reflected sometimes on the reasons for this interest in persons, who were so far removed from the sphere of princely notice. He could not understand it. At all events it was his duty not to keep the Prince away from their home, and likewise to make himself agreeable to the Rector and his wife. This he did willingly and honestly, and oftentimes went to the Professor's without the Prince; he asked him to recommend books to him, showed great deference for his judgment about men, and was guided by the Professor's advice in the choice of the Prince's teachers. The energetic dignity and proud frank character of the learned man attracted the courtier, and Werner became a valuable acquaintance to him. He was also sincerely attached to Ilse, and there were times when she too could discover something of the worth and depth of heart of the Chamberlain.

But although the Chamberlain possessed all the pliancy of a courtier, and knew that the visits to the Rector's house were acceptable both to his young master and the latter's father, he showed little complaisance for the young Prince's wishes. Indeed, he was inclined to make difficulties if the Hereditary Prince, which seldom happened, would propose to join Werner's at tea; he went there with him at proper intervals, but after the road affair he avoided any greater intimacy for the Prince. On the other hand, the Chamberlain endeavored to make the Prince at home with the students, and in a way that accorded with his rank. Of the different associations which were denoted by colors, customs, and statutes, the corps of the Markomanns was then the most distinguished. It was the aristocratic club, included many sons of old families and some of the best fencers; its members wore their colored caps in the haughtiest manner, were much talked of, and not very popular.



The Chamberlain found a relative of his in this corps, and the leaders were found to possess the qualifications necessary to appreciate properly the social position of his young master.

Thus the Prince became intimate with the association, he invited the students to his apartments, sometimes joined in their lesser drinking bouts, and was agreeably introduced by them into the customs of academic life. He took fencing lessons, and, in spite of his small delicate figure, showed some aptitude for it, and the swing of the rapier in his room daily endangered the mirror and chandelier.

Ilse expressed her astonishment to her husband that the Prince, who had at first so quickly and easily opened his heart to them, had held back so cautiously since the road affair.

"Has he thought me too forward?" she asked, with vexation; "it was said with the best intentions. But I find, Felix, it is not with these great people as with us. If we once put confidence in people we feel at home with them; but they are like the birds that sing a song close to your ear, and then at once fly off and seek another resting-place far away."

"The following year they will perhaps come again," replied her husband; "any one who tries to domesticate them will be disappointed. If their airy path brings them near, you may take pleasure in them; but one should not trouble oneself about these triflers."

Nevertheless, in secret Ilse was vexed with the unfaithfulness of her little sonster.

"My duty brings me to you to-day," began the Chamberlain, on entering the Professor's room. "Among the lectures which are desired for the Hereditary Prince is one upon Heraldry. I beg of you to recommend to me a teacher who could give him a short course upon the subject. In the capital, there was no suitable person, and I confess without blushing that my knowledge is much too scanty for me to be able to impart any to the Prince."

The Professor reflected.

"Among my colleagues I know no one whom I could recommend. It is possible that Magister Knips may have knowledge of that kind. He is well informed in all these by-paths of learning; but he has grown up in a low condition of life, and his manner is highly obsequious and old-fashioned."

This old-fashioned obsequiousness did not appear any hindrance to the Chamberlain; and as he himself wished to make use of the opportunity to ascertain clearly the meaning of a mysterious figure in his own coat of arms, which looked very much like a pitchfork, but which was really a Celtic Druid's staff, he replied:

"There need not be many lectures, and I can be present myself."

Magister Knips was called, and was, as usual, at hand, and was presented to the Chamberlain. The grotesque figure appeared comical to the latter, but not at all objectionable. His modesty was undeniable; his obsequiousness could not be greater. If one could put him into a tolerable coat, he might, for a temporary object, be allowed to sit at the same table with the Hereditary Prince and the Chamberlain. So the Chamberlain asked whether Master Knips could undertake to give some lectures upon heraldry.

"If the gracious and noble gentleman might be content perchance with German and French emblazonry, I believe I may venture to offer him my undoubtedly unsatisfactory knowledge. But of English coats of arms and figures my knowledge is not extensive, because of lack of opportunity. I would, however, endeavor to give some information upon the new investigations concerning the Honorable Ordinary."

"That will not be necessary," replied the Chamberlain; and, turning to the Professor, he said: "Will you allow me to arrange details with Master Knips?"

The Professor left them to transact the business, and the Chamberlain continued, more freely:

"I will, trusting to the recommendation of the Rector, endeavor to ascertain whether the Hereditary Prince can avail himself of your instruction and derive the proper advantages therefrom."

Knips bowed lower and lower, until he almost disappeared into the ground; but his head was reverently bent towards the eye of the Chamberlain. The latter mentioned a liberal sum as the price of the lessons. Knips smiled, and his eyes twinkled.

"I must further request, Master Knips, that you will not object to assume a becoming appearance for the intended lectures. A black coat, and trousers to match."

"I have them," replied Knips, raising his voice.

"White waistcoat and white cravat," continued the Chamberlain.

"I have those likewise," warbled Knips.

The Chamberlain considered it preferable to ascertain, by his own inspection, the capabilities of the candidate in this respect.

"Then I beg of you to make your appearance at the apartments of the Hereditary Prince in fitting guise. There we will confer upon details."

Knips appeared the following morning in his state dress, and the Chamberlain thought that the man did not look so bad after all. He gave him to understand that a learned discussion was not required, but rather a rapid survey, and, on his departure, presented to him a bottle of perfume, for his white pocket-hankerchief, in order to consecrate Knips' atmosphere.

(To be continued.)



## NOTES.

Mr. Moncre D. Conway contributes to THE OPEN COURT, a timely essay on "The Founding of our Religious Freedom," the first part of which appears in this number. The subject has never been thoroughly treated, and Mr. Conway has used unpublished manuscripts and original researches mainly.

The personal and social traits of "The Modern Greeks," will be described in *Scribner's* for September, by Prof. Thomas D. Seymour, of Yale College, whose companion article on "Life and Travel in Modern Greece," in the June number of this Magazine will be recalled. F. D. Millet and Kenyon have made illustrations.

Mr. Cortlandt Palmer, of New York, a free-thinker, founder and president of the Nineteenth Century Club, sent, two days before his death, the following message to a friend: "The world has been for me my country; to do good, my religion; and I suffer no fear in the presence of what Christians generally look upon as the king of terrors."

The new Chicago Journal *America* is devoted to the work of preserving especially American institutions. All Americans, natives as well as naturalized citizens, will heartily sympathize with these endeavors. One of the most essential features of the true American spirit is its broad humanitarianism; it is the cornerstone upon which this republic is founded, and all our hope of the future greatness of this country depends on it. While the many dangers of immigration (especially of the ignorant classes) must be acknowledged, our new contemporary would enlarge the field of its usefulness if it would take its stand on the broad American principles of our ancestors instead of limiting patriotism to nativism.

## GEORG VON GIZYCKI.

In Nos. 25 and 26 is presented a very scientific article entitled "Determinism versus Indeterminism," by Georg Von Gizycki, Professor of Philosophy at the University of Berlin. This is in answer to Professor William James of Harvard University, who, in a lecture published in the *Unitarian Review*, had maintained the doctrine of *indeterminism*. The whole inquiry relates to the Freedom of the Will, and the terms are thus explained:

"The question whether the actions of the will are phenomena which act in conformity to a law, admits of only two answers—yes and no.

The philosophic theory which holds that they do, has been called *Determinism*; that which says they do not is known as *Indeterminism*."

The argument, which is deeply philosophical throughout, and in some parts of it a demonstration, proceeds upon the theory that the human will is under the control of law, and that its actions are determined by necessity; that Freedom of the Will is never an accident, nor the offspring of caprice; that the reformation of an evil-doer is made by surrounding him with conditions whose laws will compel his will to act in the right way.

## E. P. POWELL.

The American scholar, E. P. Powell, gives his views on "Language" in Nos. 24 and 26. He maintains that language, as a means of communication, is possessed by all the animal creation, even down to the lowest in the scale of being; that all communicate with one another; that all of them have a language to express their wants and especially to express hunger. This lies at the root of the principle of evolution, because "organic development is necessitated in the direction of organic power to express—to speak."

## W. D. GUNNING.

Mr. W. D. Gunning's essay *Katzenjammer*, in No. 1, is a sprightly, half humorous, half serious lay sermon, sending shafts of light into the dark recesses of the mind. *Katzenjammer* is a German word, which means cat-sickness, and denotes a malady of body and mind which results from night-life. The owl, the night-hawk, the whip-poor-will and all the felines are night-prowlers. Men also have gone astray with the cats and become nocturnal; even Socrates, with all his virtues was somewhat addicted to *Katzenjammer*. *Katzenjammer* was a large factor in the decline of Athens and the chief factor in the fall of Rome. What a *Katzenjammer*-band was that of Cataline! What *Katzenjammer* was that of Nero fiddling in the light of burning Rome! Struggle for life drove one member of a certain family higher into the air, and another into the ground. The sun-seeker gained in eye and brain, the earth-burrower lost its eyes and retained only brain enough to guide it through the ground. Such are the fates of the mole and the bat. Igrasil the tree of life has been pushing its human fruit inward to the shade. We want a peripheral humanity lit by beams of science and sweetened and mellowed by active rays of the sun of righteousness.

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## THE FOUNDING OF OUR RELIGIOUS FREEDOM.

BY MONCURE D. CONWAY.

(Concluded.)

When the Virginia Bill of Rights was passed, Williamsburg paraded and fired all its cannon. But nobody supposed that the declaration of religious freedom had any more bearing on the established church, than its declaration, "that all men are by nature equally free and independent," meant negro emancipation. Patrick Henry, in offering the clause, disclaimed any intention of attacking the establishment; and the convention, equally unconscious of what it had done, proceeded to substitute "Commonwealth" for "King" in the prayer-book. Though in the autumn of that year (1776), the Virginia Assembly suspended the tax in support of the clergy, it was to be some years before the full bearings of the principle adopted could be realized. A commission, consisting of Jefferson, Pendleton, Wythe, George Mason, and Thomas Ludwell Lee, engaged (1777-79) in revising the laws of Virginia, reported the famous statute, his authorship of which appeared to Jefferson a nobler claim to mention on his tomb than the official honors he carefully omitted. "No man shall be compelled to frequent or support any religious worship, place, or ministry whatever, nor shall suffer on account of his religious opinions or belief. Opinion in matters of religion shall in nowise diminish, or enlarge, or effect civil capacities. And though we well know that this Assembly, elected by the people for the ordinary purposes of legislation only, have no power to restrain the acts of succeeding assemblies, constituted with powers equal to their own, and that, therefore, to declare this act to be irrevocable, would be of no effect in law; yet we are free to declare, and do declare, that the rights hereby asserted are of the natural rights of mankind, and that if any act shall be hereafter passed to repeal the present, or to narrow its operation, such act will be an infringement of natural right."

This statute, as Bancroft says, was translated into foreign languages and widely circulated in Europe, and "a part of the work of the noble army of martyrs was done." But it was not quite done in Virginia. The revised code was indefinitely postponed for popular discussion, and, meanwhile, a reaction set in. On May 15th, 1783, Edmund Randolph, writes Madison

from Williamsburg: "Religion, which has hitherto been treated with little respect by the Assembly, was yesterday incorporated into their proceedings. Mr. Hay moved for a chaplain, and that a prayer should be composed adapted to all persuasions. The prayer has not been reported, though several trials, I am told, have been made." This was a symptom. Petitions had begun to come on the Assembly, alleging a decline of morals, and attributing it to the neglect of religion, for which some provision was demanded. In 1784, a standing committee reported on these memorials, and in pursuance of their recommendation, a bill was introduced for a general assessment of the people for the support of religious teachers, each individual stating to what denomination his tax should go. To this measure Patrick Henry gave enthusiastic support. Even the Presbyterians supported it. "They seem," wrote Madison to Monroe, "as ready to set up an establishment which is to take them in, as they were to pull down that which shut them out. I do not know a more shameful contrast than might be found between their memorials on the latter and the former occasion." Madison was now a member of the Virginia Assembly. The utmost he could do (1785), was to secure a postponement until the constituencies could be heard from. He then prepared his powerful "Memorial and Remonstrance," which was scattered through the State for signatures. During the interval, Madison wrestled with the Presbyterian ministers, while his friend, Edmund Randolph (Attorney of the State), did the like with the Episcopal clergy, who had at first been pleased with the scheme. Randolph writes to Madison (July 17th, 1785), "I dedicate to you, as the patron of the Protestant Episcopal Church, the enclosed journal. Between friends, my experience in the last (Episcopal) convention does not make me anxious to step forward in another. We have squeezed a little liberality from them, but at a future day they will be harder than adamant, and perhaps credulous that they have authority." When the day of battle arrived, Patrick Henry had left the Assembly for the gubernatorial chair. Washington—at first wavering—had expressed hope that the Bill would die an easy death; and George Mason, with Madison, stood beside a table groaning under the signed remonstrances prepared for a combat never to be offered.



It was not even offered when the occasion was improved to take up the Jefferson statute, lying on the table since 1779, which was then made law.

In this contest, Madison and the State Attorney were one, but on a related question their views diverged. In 1784, the Assembly had granted petitions of the Presbyterians and Episcopalians for incorporation of their respective denominations, the same being offered all denominations. The Episcopal Church alone availed itself of the grant, which enabled it to own its glebes. A bill for incorporating this church was brought in by Patrick Henry, who thereby lost popularity among the Baptists. After elimination of some ecclesiastical survivals from the bill, Madison voted for it; but he only meant it as a nail to drive out a rustier one—the Assessment—and, this being removed, addressed himself to the work of repealing the Episcopal incorporation. Concerning this, the State Attorney (Randolph) wrote to Arthur Lee: "I cannot but consider the act of incorporation in the light of a compact which legislative authority may dissolve by the arm of power, but not by the rules of justice and honor." Madison now advocated the repeal on the ground that incorporation recognized the principle of legislative interference with religion, but admitted that each sect should be secured in its possessions, and this proviso was embodied in the repealing act, (January, 1786). This settlement was, however, assailed. In 1789, when Randolph was engaged on his revision of the Virginia Code, which delayed entrance on his duties as Attorney General of the United States, he writes to Washington, (November 22): "In a day or two we shall be agitated by a question on the sale of the glebes. The partisans of this iniquity wish to keep it off until next year; but it is determined to prepare an antidote to their misrepresentations by stating the title of the church in a pointed manner." It was not until 1802, (three years after repeal of all post-revolutionary laws on church property,) that the glebes were confiscated and ordered to be sold. But this act has been declared unconstitutional by the Supreme Court. (*Terrett v. Taylor*. 9 Cranch, 53.)

Most of the Virginians who sat in the Constitutional Convention of 1787, had been members of the Virginia Convention of 1776. They had therein toiled through some weeks before they could secure adoption of the first clause of Mason's Bill of Rights, that "all men are created equally free and independent." With such an experience, Governor Randolph was little inclined to risk entanglement of the Philadelphia assembly among generalities; and indeed such "display of theory," as he phrases it, "however proper in the first formation of State governments, is unfit here." His idea of a federal constitution, written to Madison as early as March 7, 1783, was "a compact in which

the people themselves are the sole parties, and which they alone can abrogate, delineating the degree to which they have parted with legislative, executive, and judiciary power, as well as prescribing how far each of the simple forms of government is to be pursued in acts of legislation." In harmony with this, his draft of a constitution, recently discovered, contains no allusion to religion. No power could ever be claimed on a matter not even mentioned. Religion had not been ignored, however; and it was due to Randolph's vigilance that the double-edged clause in Art. VI, against religious tests for office, did not injure the freedom it meant to secure. On Feb. 29, 1788, he wrote to Madison: "Does not the exception as to a religious test imply that the Congress, by the general words, has power over religion?" This led to an agreement between the two that religious liberty needed further security, which was urged in the twentieth amendment sent up by Virginia along with its ratification: "That religion, or the duty men owe to our Creator, and the manner of discharging it, can be directed only by reason and conviction, not by force or violence, and therefore all men have an equal natural and inalienable right to the free exercise of religion, according to the dictates of conscience, and that no religious sect or society ought to be favored or established by law." There were implications here also. The words closely resemble Patrick Henry's proposed addition to the Bill of Rights, already quoted, and perhaps were meant to conciliate him to the new constitution; but they were modified by the same hands that modified the Henry article fifteen years before, Madison and Jefferson, and, in combination with the sixteenth Virginia amendment securing freedom of the press and speech, were established in the first article added to the constitution.

The part performed by Jefferson in the founding of our religious freedom, was different from that sometimes attributed to him, especially by those who regard that freedom as representing the free-thinking tendencies of the time. The hand of Jefferson may be recognized in the Virginia statute of 1786, and in the first constitutional amendment, giving a liberty free from phraseology which might be construed into limitation. It may be that only an unorthodox eye could have detected the points at which a freedom primarily aimed at pretensions of a particular church, might yet be inadequate to include the freethinker. It is also certain that Jefferson was consulted as an unorthodox man, he and others, and that Randolph, Madison, and Mason, deliberately enlarged their phrases to include every variety of denial as well as belief. But the foundations of our religious freedom were laid in the Virginia Convention of 1776 by devout and orthodox members of the English Church.



That church was disestablished by its own vestrymen. It is true also that the leaders in the work, Madison and Henry, had been brought under especial Presbyterian influence, which, while kindling their religious spirit, yet did not draw them from the old church. Madison, Randolph, Mason, Washington, and others, having disestablished their own church, prevented Presbyterianism from establishing another of pandenominational character. Jefferson's statute lay on the table seven years, and was then made law by Madison and Mason, assisted by the devoutest Episcopalian and Presbyterian ministers whom they had fairly converted. It is certain, therefore, that religious freedom was founded by religious men, though that foundation was afterwards broadened to secure perfect equality between the believer and unbeliever. Among these founders, who knew well what they builded, was George Washington. To George Mason, his friend and neighbor, in conjunction with whom he built a church, Washington said: "No man's sentiments are more opposed than mine to any kind of restraint upon religious principles."

The words were meant to be quoted in the Assembly for the purpose of defeating the proposal for a general assessment for support of religious teachers, and were so quoted; they helped to enact in place of that scheme the statute prepared by Washington's first Secretary of State—Thomas Jefferson. What the religious freedom and equality incorporated in the constitution implied in the mind of Washington, has been seen in the article from the Tripoli Treaty already quoted. The skeptical Jefferson was not so bold as his orthodox predecessor, and when he renewed the treaty, in 1805, the broad assertion of the non-Christian character of this government was omitted. The treaty ran: "As the Government of the United States of America has in itself no character of enmity against the law, religion, or tranquility of Mussulmans, etc." The omission may, indeed, have been due to Tobias Lear, who drew up the treaty, but it is equally probable that Jefferson dreaded an increase of the reactionary feeling which had been exasperated by the writings of Thomas Paine. Jefferson's affirmative creed being established in the religious liberty of the Virginia and the Federal Constitutions, verbal expression of his negative views, appeared to him of little importance compared with the monument of catholicity he aimed to give his State, to be a model for the nation. This was to be an educational system, free from any and all religious bias, which should diffuse the knowledge by which truth would alone be elicited. For this end he worked with men of orthodox creed and catholic spirit, with Madison, Marshall, and others,—and at length his creedless University was established. By significant coinci-

dence it was first planted on an old church glebe. It was achieved amid menaces of jealous sectarianism. An early invasion of typhoid among the students drew down a solemn episcopal warning on the non-Christian institution. From time to time it is even now charged that Jefferson established the University to propagate infidel opinions. Nothing could be more untrue. Jefferson was extremely anxious to secure the university from all such strife. I have just copied from its library catalogue, written with his own hand, these words: "In Religion, divided as it is into multifarious creeds, differing in their basis and more or less in their superstructure, such moral works have been chiefly selected as may be approved by all, omitting what is controversial and mainly sectarian." One looks in vain for the deistic works of Paine and other polemical writers. Nor were Jefferson's opinions such as would now be called "infidel." Although from the time of his graduation at William and Mary until his refusal on his death-bed to receive the clergyman "except as a good neighbor," he was never orthodox, he had a religious spirit, and the reverence for Christ which led him to make the book preserved by his descendants at Edghill: "The Life and Morals of Jesus of Nazareth extracted textually from the Gospels in Greek, Latin, French, and English."

Those reactionary zealots who desire to "put God in the Constitution," are assailing an edifice founded by their own orthodox ancestors. Not much, indeed, is to be feared from them. The more formidable enemy is the insidious usurpation which, in contravention of the very constitutional letter has "established" such religious institutions as Sabbath, Chaplaincy, and the Thanksgiving day. Behind these encroachments is a pious party which reads its prepossessions into the constitution as easily as into the Bible. An offender in this direction has just appeared in Dr. Philip Schaff ("Church and State in the United States": 1888). In quoting Washington's statement that our Government "is not in any sense founded on the Christian religion," he omits the pregnant words "in any sense." He quotes Washington as having favored religious assessment, though Washington disdained it. He says, that the constitution, in requiring an official oath, recognizes "the Supreme Being, to whom the oath is a solemn appeal." The constitutional alternative of affirmation is here omitted; also the care with which divine sanction is omitted from the special oath of the President. The reader is left on one page to infer that the use of the Bible, in the oath, is constitutional. Dr. Schaff's interpretations of law are often erroneous. He claims that the anti-polygamy decision of the Supreme Court (*Reynolds v. the United States*) would exclude from toleration "the public exercise of Mohammedanism which sanc-



tions polygamy." It is not the sanction but the practice of polygamy which is prohibited.

Let me mention in conclusion, that the most important statement of the legal relations of religion in this country, will be found in a volume published in Cincinnati, in 1870, entitled: "The Bible in the Public Schools." In it are exhaustive arguments delivered before the Superior Court by Stallo, Hoadly, and Matthews (now of the Supreme Court). The judicial opinions are also of the highest importance. It is a pity that the pith of that volume is not published in a convenient form; for the friend of religious freedom will find in it much ammunition to defend the faith delivered from our free and brave political fathers.

#### THE PROBLEM OF DOUBLE PERSONALITY.

The late Mr. Edmund Gurney, one of the founders of the Society for Psychical Research, in England, has been praised as one of the most "careful investigators and sifters of the evidence of unusual phenomena." His papers on the many problems of the soul have been, perhaps, the most valuable contributions to the Proceedings of the Society for Psychical Research, showing "the utmost anxiety to state fully all those facts, which bore unfavorably on the reality of the phenomena which he was investigating, and to attenuate, instead of enhancing, the marvel of the elements involved." The descriptions of his experiments, therefore, possess value also to those who do not accept his explanations and theories. We here present a number of experiments of "intelligent automatism" as described mainly in Mr. Gurney's own words by *The Spectator*, of June 30, 1888:

"Mr. G. A. Smith, the 'hypnotiser,' sent off one of the patients into a mesmeric sleep, and in this sleep the patient was told that he was to write some particular word, or to count the number of *e's* in a particular verse, or to do a particular multiplication sum when he awoke. \* \* Then he was awakened and at once engaged in reading aloud, or counting backwards, or doing something that engrossed his full attention; but his right hand was placed on the planchette (an instrument on wheels containing a pencil), the paper and planchette being always concealed from the subject's eyes, so that he could not know, unless he were able to guess from the blind movements of the instrument under his hand (which guessing was made very difficult by the occupation found for him), what letters or figures (if any) the instrument was tracing. 'As a rule, he was always offered a sovereign to say what the writing was, but the reward was never gained.' On being sent back into the mesmeric sleep, he recalled the whole process, though in the waking state he could never tell what the movements of the planchette under his hand were engaged in producing. Here is Mr. Gurney's account of the results as regards the arithmetical sums worked by what he calls the 'secondary intelligence':—

"The sums given were simple, as most of the 'subjects' were inept at mental arithmetic. There were 131 sums in which three figures had to be multiplied by a single one; of these 52 were quite right, 28 had three figures in the answer right, 18 had two figures right, and 14 had one figure right only, whilst 12 were quite wrong, and 7 were either so illegible and muddled as to be unde-

cipherable, or only a small stroke or curve was made at all. \* \* In some cases the sum itself was correctly written, but no attempt was made to put the answer. \* \* A few sums of other kinds were also given: of 14 simple addition (of about the following difficulty:  $4 + 7 + 9 + 11 + 13$ ), six were done correctly, two were quite wrong, and the remaining six were either not done at all, or the answers were illegible scribbles. \* \* Another case illustrates the very distinct memory, on re-hypnotisation, of what had been written. Wells was told to work out the sum, '13 loaves at 5d. each,' and instantly woke as usual. He wrote, '13 loaf at 5d. is 5s. 5d.' When hypnotised again, and asked to say what he had written, he replied, '13 loaf—oh, I've put *loaf* instead of *loaves*—at 5d. is 5s. 5d. I've written the 13 twice—see—but I crossed it out.' He then proceeded, by a long roundabout process, to work the problem out, arriving at the correct answer again.

"Another form of experiment was to tell the 'subject' to count the number of times a certain letter occurred in a given verse. Thus, Wells was told to write down the number of times the letter *E* occurred in the verse—'Mary had a little lamb, etc.,' and then, after saying the verse once quickly through to show that he knew it, he was instantly awakened and given *Tit-Bits* to read. Whilst thus engaged he wrote, *The letter E comes 11 times*—which is right. The same experiment was tried with Parsons, who also was kept occupied by being set to read immediately upon waking; but he was not so accurate, and wrote down '12.' He was completely successful, however, when told to write the number of *E's* in

God save our gracious Queen,  
Long live our noble Queen,  
God save the Queen.'

and wrote 11, having read excellently the whole time."

Concerning Mr. Gurney's explanation of these facts, *The Spectator* adds:

"His inference is that these trances induced by mesmerism, or whatever we like to call the peculiar influence which special persons seem to possess of rendering others unconscious,—separates the mind of the patient into two separate planes of consciousness, each of which is capable of accomplishing such simple intellectual tasks as the subject's education has fitted him to perform, but nevertheless without the privacy of the other, so that the man is apparently subdivided into two men, one of whom is reading aloud, and the other working a sum or counting the number of *e's* in a stanza, though the man who is doing the sum has little or no knowledge of what his *alter ego* is reading aloud; while the man who is reading aloud has no knowledge at all of the operations of the *alter ego* who is doing the sum."

The facts fully agree with the investigations of the French school of experimental psychology. Th. Ribot's view of double consciousness has been explained in No. 13 of *THE OPEN COURT*, page 346, as follows:

"The *ego* is no distinct entity of conscious states. Such an hypothesis is useless and contradictory; it is a conception worthy of a Psychology in its infancy. Contemporary science sees in conscious personality a compound resultant of very complex states. The mechanism of consciousness is comparable to that of vision. Here we have a visual point in which alone perception is clear and precise; about it is the visual field in which perception is progressively less clear and precise as we advance from center to circumference. The *ego*, the present of which is perpetually renewed, is for the most part nourished by the memory. Beneath the unstable compound phenomenon of consciousness in all its Protean phases of growth, consumption, and reproduction, there is a something that remains, and this something is the obscure consciousness which is the product of all the vital processes, constituting bodily percep-



tion, and which is expressed in one word, *cansthesis* (Germans call it 'Gemeingefühl'). The unity of the Ego is not that of a mathematical point, but that of a very complicated mechanism; it is a consensus of vital processes, co-ordinated by the nervous system and by consciousness the natural form of which is unity."

It is well known that most organs of our body work automatically without the slightest interference of, or accompaniment by, consciousness. It is a fact also, that many, nay most, processes of our brain take place with the same automatism and regularity as the beating of our heart, and (as Mr. Ribot says) "consciousness is the narrow gate through which a very small part of all this work makes its appearance."

Mr. Gurney's experiments, far from proving that the soul is a mysterious entity, tend only to strengthen Mr. Ribot's and his co-workers' position. It is not the *ego* which stands behind the scene and creates our ideas, like an operator working on the mechanism of brain-cells; but our ideas being living brain structures enter as it were into consciousness and produce the *ego*. They may be at work without being connected with consciousness, in which, so to say, our feelings are focused. In the hypnotic state (which is an obliteration of consciousness), it appears that another centre of brain activity is created which stands in no connection with the consciousness of the waking individual. Thus a second *ego* is produced, to which the first *ego* is not privy, and we have the strange incident that two personalities exist in one and the same person. The second *ego* takes precedence in the hypnotic state, when the first *ego* is paralyzed by sleep. In the waking state the second *ego* disappears, but it does not cease to exist. Mr. Gurney shows that even then its activity, as well as its memory, continues. Although unconscious with reference to the first *ego*, it must be conscious with reference to the second *ego*.

Consciousness and unconsciousness, it appears, are merely relative. Sometimes long chains of most complicated thought are unconscious, and their results only flash up in consciousness like a divine inspiration. Poets, inventors, mathematicians, and other thinkers have often occasion to experience this, and Lichtenberg is right when saying: "We should say, 'It thinks,' just as well as 'it lightens,' or 'it rains.'" This idea, fully understood, solves many psychological problems and accounts also for the odd facts presented in Mr. Gurney's experiments. 'It' thinks in the subjects experimented upon. 'It' thinks here and there, and in many other places of their brains. By his excellent method, Mr. Gurney succeeds in making a part of this latent thinking appear, without letting it enter into consciousness, *i. e.* the consciousness of the first *ego*.\*

P. C.

## MONISM AND RELIGION.

A REJOINDER. BY D. THEOPHILUS.

*With Editorial Remarks.\**

The article submitted by me as a criticism of THE OPEN COURT's method of conciliating religion with science, and which was published in No. 30 of the journal, has since been honored with two able replies: the one from the editor, and the other from Mr. E. P. Powell. Both written in defense of the view I combated; otherwise differing widely from one another as regards the method of defense, as well as the grounds whereon the alleged harmony is based.

Dr. Carus in his preliminary remarks intimates that the view put forth by me cannot be a final one; that it is rather the expression of a mind in a transition stage of development. He pays me the compliment of telling me that he himself had once been in that stage; but that a further study and research had enabled him to pass through to the position he at present occupies.

It is to be regretted, that he did not give us the facts or the arguments that prevailed with him and were influential in giving that particular direction to his mental growth. Had we been furnished with such an item, it might have been a valuable acquisition—a means of carrying conviction to others. In its absence, the bare mention of the fact itself can scarcely possess such efficacy. For that particular way of development is far from uniform. No one knows better than Dr. Carus that the mental growth of some of the greatest minds in history has taken the reverse order of the one he gives as his own. Their transition stage being his final, and his final, or at least something similar, had been their transition period. To limit myself to but few instances, that was the order of growth of such minds as those of Feuerbach, Strauss, and Ueberweg, in his own native country; and those of the two Mills, G. H. Lewes, George Elliot, and Clifford, in my own. No one need be ashamed of being found in company with such men as these.

[The mental growth of most minds has been from authoritative belief through doubt and unbelief to a rational faith, from religious superstition through a radical denial of religious truth to the religion of humanity, from supernaturalism through skepticism and agnosticism to positivism. Strauss has written *The Life of Jesus*, a radical criticism of the gospels and some time after the publication of this work he wrote *The Old and the New Faith*. Feuerbach has made similar efforts to create a new faith, based on altruism (*Liebe*), in the place of that untenable creed which he had torn down, because it rested on superstition. Ueberweg's chief work does not prove that he went so far as to openly oppose religion. I doubt whether he did it at all. He is known to me as a scholar only who has written a history of philosophy with scientific objectivity and impartiality.

[The life work of Mr. Clifford and George Elliot has been in another line. Clifford was a physicist, and moreover he died extremely young; his career, however brilliant, was so short that we can scarcely refer to a development of his views. George Elliot most decidedly suggests in her novels that a new faith has to take the place of the old creeds. Mr. Lewes, it is to be presumed, did not disagree with his wife on this point. The two Mills did not go so far as to point out the possibility of a new and truer religion. But what of that? They did not concern themselves with such an idea. They might have done so. And one of their followers, Mr. Herbert Spencer, has made an attempt to propound a philosophic religion in his *First Principles*.

[The signs of the time indicate that the development of humanity is pressing forward in that direction.

\*We again take occasion to mention the excellent work by MM. A. Binet and Ch. Féré on *Animal Magnetism*, a translation of which has appeared in the International Science Series (Appleton & Co., New York, 1885).

\*Lack of space prevents us from writing an editorial article in answer to this Rejoinder. The necessary replications, for the sake of saving space, will appear as parenthetical insertions marked by hanging indentations.



[The motive of Strauss, Fuerbach, Comte, *et al.*, for abandoning the desert of mere unbelief and creating (or at least for attempting to create) a new and rational faith has been (and so it was with me) the natural desire of man to have a harmonious conception of the world as a guiding star in life.

[Goethe had the same experience when he had lost the faith of his childhood. But he had strength enough to restore the lost harmony. The breakdown of the old form of belief must be a transition to a better belief, to the belief in the possibility of progress, and to the confidence in the victory of the good, and to the faith in humanity and the advancement of humanity. When Faust, having lost his hold in life, curses Hope, Faith, and Patience, the choir of spirits sings:

Woe! Woe!	Mightier
Thou hast destroyed it,	For the children of men,
The beautiful world,	Brighter
With powerful fist;	Build it again,
In ruin 'tis hurled,	In thine own bosom build it anew!
By the blow of a demi-god shattered!	Bid the new career
The scattered	Commence,
Fragments into the Void we carry,	With clearer sense,
Deploring	And new songs of cheer
The beauty perished beyond restoring.	Be sung thereto!

[Dr. H. Druskowitz, in her pamphlet *Moderne Vertuete eines Religionsersatzes*, enumerates the most important efforts which have been made in this direction. She discussed the views of several modern thinkers and gives most prominence to August Comte, Eugen Dühring, W. Salter, and August Nitsche. The authoress herself and all these men are known as unflinchingly radical, and yet they leave the barren shores of negation and make earnest attempts to build a better religion in the place of the relinquished creeds, so as to preserve what is good and true in them.—Ed.]

Having given us a slight touch of that unconvincing, yet popular style of reasoning, consisting of an appeal to prejudices,\* a species of reasoning known to the Logicians as *argumentum ab invidia ductum*, Dr. Carus proceeds to discuss the subject-matter of the essay itself. He says, "The leading mistake of Theophilus is that he criticises religion as he defines it, not as it is defined in THE OPEN COURT." To this charge I can hardly plead guilty. For the larger portion of the article was devoted to the task of showing the inadequacy of the definition of THE OPEN COURT. That in strictness it was no definition of religion at all, though it might be a correct definition of metaphysical philosophy. I wish Dr. Carus had distinctly stated how does religion as conceived by him manifest itself. Is it a thing of the intellect, or of the feeling, or both, and wherein does it differ from science and ethics? [A definition of religion has been repeatedly given in THE OPEN COURT.

[The basis of Religion is man's relation to the All. The man who is aware of his dependence upon the whole of existence, who feels himself as a representative of the order of the world and who knows that he has to conform to the laws of the cosmos and intends to do so, is religious. We may repeat here the expression used above: Religion is a conception of the world that serves as a guiding star through life.

[Religion (in this sense) is the basis of Ethics. Ethics (which is the science of morals) instructs us about the proper conduct of man. He who conforms consciously and from principle to the laws of the All, is moral. We purposely say 'consciously and from principle,' for an animal may conform to the laws of the cosmos from instinct; an animal cannot properly be called moral. Only a rational being can be moral in the highest sense of the word.

[Science investigates the laws of the Universe; science is systematized knowledge, based on methodical observation and consistent reasoning; its method being economy of thought. Science is a matter of reasoning and understanding. Religion is not exclusively cognitive, it takes the whole man, his head and his heart, his intellect and his feeling. Without any knowledge of the most important cosmical laws, religion will become superstition; and without character, without good-will, and without devotion, religion is hypocrisy.

[It must be repeated here that 'Mr. Theophilus did not criticise religion as defined by THE OPEN COURT.' He showed only, as he confesses now, 'the inadequacy of the definition of THE OPEN COURT, which 'in strictness is no definition of religion at all,' in other words, of religion as defined by Mr. Theophilus.—Ed.]

To what he calls my definition of religion, the editor raises the objection that it excludes Buddhism, which is an atheistical religion, "whose adherents are the most numerous on earth." At first sight this appears a very fatal objection. It is an objection, however, that I had fully in mind while fixing the limits of religion in the former article. In reply I would remark that Buddhism, as promulgated and practiced by Gautama himself and his first disciples, was no religion at all in the strict sense. It lacked the distinctive mark whereby religion has been known in the world. He himself was simply a social reformer, and the society established by him was merely a sort of brotherhood—a union of men of like sympathies for mutual aid; a society similar in character to the Pythagorean brotherhood in ancient time, or the Guilds in the Middle Ages, or the various orders of the present day. And I should go further and say that the society founded by Jesus was of a like character. Both Buddha and Jesus were strictly social reformers: neither taught nor intended to teach a new religion. In so far as the latter was concerned, each was satisfied with the form already in vogue in his own country.

In course of time both developed into genuine forms of religion. The founders of the societies are no mere mortals any longer. Henceforth their persons are idealized, their names sacred, and their origin shrouded with mystery. Their doctrines are invested with infallibility and authority, and their precepts become commands which no one, with impunity, can violate or disregard. Allegiance to the person thus transformed is now the badge of the society: and the same has always constituted the distinctive mark of religion. Buddhism thus metamorphosed, is doubtless a religion, and as such is not excluded by the proposed definition.

[Mr. Theophilus is consistent as to his definition of religion when he states that the religions of Jesus and Buddha were no religions, but that the degenerated types of Christianity and Buddhism were. According to our view, Christ's ethical doctrines contain more religion than all the dogmas of Christianity. The question remains, which definition is more legitimate, and which shall we consider as the essential feature of religion the truth contained in it, or its errors?—Ed.]

Disregarding minor differences and side issues, let me here briefly indicate wherein lie the essential points of difference between the editor and myself. With his philosophy I have no quarrel. On the contrary, I believe the monistic conception of the world is the only view consistent with scientific knowledge. And his position as defender of that philosophy, I regard as altogether impregnable. But when he proceeds to build up a religious faith and practice upon the monistic philosophy as basis, he seems to be undertaking an impossible task, without at the same time doing violence to the principles of that philosophy.

[The religion of monism is the simple consequence of a monistic philosophy. It does not do violence to its principles but is practical result.

\* No defense shall be made against insinuations, that my argument consisted of "an appeal to prejudices."



[The main difference between philosophy and religion is that philosophy is for the few, religion is for the masses; philosophy is for the thinker alone, religion is for everybody; philosophy is esoteric, religion is exoteric. If the principles of philosophy can be presented so clearly and in terms so simple as to be accessible to the many, this philosophy can become a religion. Whether this is possible with regard to the philosophy of monism remains to be seen. The efforts of THE OPEN COURT are the first practical attempts in this line and our readers are enabled to judge themselves of the feasibility of our idea.—Ed.]

My contention is that there is involved in religion a recognition of a personality claiming allegiance or worship at the hands of its devotees. There is always implied in it the idea of a personal relationship. All forms of religion hitherto known in history, have exhibited this indispensable feature, as their very core, essence, and life.

The monistic conception furnishes no data for the realization of such relationship, and none, therefore, for the existence of religion; that is to say, religion such as the world, under that familiar symbolic name, has universally recognized.

[One of the chief errors of dualistic religion is its anthropomorphism. The dualistic god is a person like a human being, and according to the dualistic conception, the personality of God is the cornerstone of all religion. This had been repeated so often that even their adversaries believed it. And it is this belief of which Mr. Theophilus is unable to free himself. When in former times the prince considered himself as the state (*l'état c'est moi*), a republic or a State without a prince was declared to be an illogical fiction; allegiance except to a prince, it was assumed, could as little exist as a religion without a supernatural and personal God. Even the enemies of princes at length believed in this logic, and declared: let us have no State at all, no law or social regulation, for republics are a sham, they are monarchies disguised and true liberty means anarchism.]

[In opposition to such views, THE OPEN COURT declares, that just as true patriotism and faithful allegiance to one's country are purer in a republic than in a monarchy, so religion will be higher and more elevated, if it is freed from those superstitious elements which have been wrongly considered as 'the very core, essence and life of religion.' The adversaries of the orthodox are not as yet impartial enough to see that there is a deeper meaning in religion than both parties (believers and unbelievers) are aware of.—Ed.]

To the monistic thinker, such a personality as religion postulates, is wanting; and as a necessary consequence from this fact, he at the same time discovers that the feeling of allegiance or religious emotion has died out in the heart. The latter can only arise when the intellect has found an appropriate object for its exercise. Take away that object and the feeling instantly collapses.

Such, it seems to me, is the issue deducible from the monistic philosophy. That philosophy has undermined the foundation of religion, both in external nature and in human consciousness, both as a knowledge and as a sentiment. So that there is no longer room for it either in the intellect or in the heart. It has been ousted from both positions by the simple operation of the law of development, and no other force whatever.

The religious idea, like many other products of human consciousness, did discharge once a useful and necessary function in man's intellectual and moral life, but at a certain point in his growth, he may find it of no use to him. There is no longer within consciousness any function for it to discharge; and so as an inevitable consequence, it perishes, precisely as is the case in the organic world.

It should be remembered that there is a struggle for existence

going on within as well as without; in human consciousness just as much as on nature's field. New thoughts, ideas, and emotions, spring up and out from existence the old, leaving behind them mere empty hulls in the shape of words, like fossil remains in the physical world. To a considerable number of people at the present day there are many words in the English language already passed into the fossil state. To this class belong such words and ideas as, hell, heaven, ghost, soul, immortality, providence, miracle, oath, witchcraft, etc. And to these might be justly added, in the case of many, religion.

To a monistic thinker who has lost the religion of his youth, there are two alternatives to choose: either to be satisfied with no religion at all, or to construct a new one from a new material. Dr. Carus appears to have chosen the latter. This new religion he defines as a man's consciousness of his relation to the whole cosmos. The relationship here implied is not personal as is the case in the abandoned faith. And the allegiance given to a personality in the old religion, becomes in the new allegiance to principles and to the laws of existence. And this when reduced to practice means simply correct living.

But why give the name religion to what already had an appropriate name of its own? Right living in all its bearings and relations is covered by the word morals. And the science whose function it is to discover the right sanctions or the philosophic grounds of morals, is known to the world as ethics or ethical philosophy.

[Ethical philosophy (the science of morals) is a department of science and must be studied in colleges. Religion is more than a philosophy to be taught in lecture-rooms to students. Religion is a popular philosophy to be preached to the masses. A philosophy appeals to man's intellect only, but a religion addresses itself to the whole man, body and soul, his heart and his head.—Ed.]

Suppose, however, all verbal objections be waived. Suppose we grant that this noble and philosophic view of life should be named religion. Will it answer the purpose intended? Can it fill up the gap left vacant by the old religion? I think not. The world is not good enough for such a religion, if religion it must be called. It is fit only for the select few—the well-disciplined souls. These alone can appreciate it, and live it. By the world outside this circle it will be utterly ignored.

[There is no perfection in the world, it is true. But Mr.

Theophilus's pessimism is not justifiable. It is a fact that not only science is popularized and made more accessible to the masses, but the masses also are better educated, and become so more and more. If monism is a truth, the religion of monism will either purify the old faiths or fill the gap produced by their destruction, and it will answer the purpose intended. Is truth—not the detailed truths of branch-sciences, but, truth in its broadest sense—is truth really fit only for the select few?—Ed.]

To the ordinary mind there is no connection necessarily between the fact of having an intellectual apprehension of the universe with its interdependent parts, and living a correct life. A theoretical knowledge of the laws and conditions of life have no direct influence over his conduct. Socrates appears to have held the doctrine that a knowledge of the right ensured its practice. In the case of the Greek sage personally the doctrine might have been correct. And the same might be said of others who have passed through the Socratic discipline. Applied to the world in general the doctrine is decidedly an error. In fact the history of civilization is little more than a repeated series of refutations of that doctrine.

The truth is mankind has never cared for high principles or for abstract laws or indeed for laws of any sort unless backed by power—power of some description such as that allied with wealth,



position, public opinion, or brute force. The world has always paid more respect to persons than to principles. It is more amenable to external force than to reason. When all other modes of arguments have failed to secure conviction, the *argumentum baculinum* has proved successful.

[What is 'wealth, position, public opinion, or brute force' but parts of the All! All these, if they are in contradiction and opposition to the cosmoical order of the All, will perish. Even empires cannot exist for good unless they are backed by the power which is the reality and the life of the cosmos. What a sad conception of life it must be that believes in the "argumentum baculinum" as the strongest power in securing conviction.]

[Every notion, every knowledge—be it right or wrong—influences man's conduct. If the moth knew that fire burns, it would shun the flame. And if a theoretical knowledge of the laws and conditions of life had no influence, let us despair and die; but the truth is they have a most powerful influence upon us.—Ed.]

From this consideration it must be seen that a religion founded on principles, such a religion as THE OPEN COURT offers to the world, has but a poor chance of success. And that chiefly because it lacks the power to enforce its principles. It is deficient in what Kant called the categorical imperative. This the old religion possessed in a high degree, and as a consequence, it held the entire world of mankind for successive thousands of generations, at its feet in a cringing and adoring attitude.

It is to be feared that the world at large is hardly yet sufficiently advanced in mental and moral development to enable it to dispense with its ancient Fetish, and to accept an unpretentious religion of principles in exchange for the awe-inspiring religion of force.

(To be continued.)

### THE GUIDE-POST.

A FABLE. BY HUDOR GENONE.

An innkeeper of Argolis, who had kept his tavern at the parting of ways for upwards of half a century, died; and his shade repairing, as the custom was, to the immortal gates of shadow, implored (for so the etiquette of the dead was, as with us now a matter of habit) high regard and honor from the gods at whose hands favor was.

"Nay," quoth the warder, helper to him called Hermes, messenger to the higher gods; "but say first what hast thou done to deserve favor at our heavenly hands? Speak and tell of thy good deeds and worthy."

The innkeeper, who was indeed worthy enough, was of a modest turn. Not used to dignities except perchance on rare occasions to serve them at his hostelry, he stood abashed, eyes drooping, unable to command words to answer fitly or even at first at all.

"Perhaps thou hast built a temple in thy time?" said the door god, not without a touch of mockery in his tone.

"O no!" answered the new immortal, "o no, indeed! I never even thought of doing that."

"Hast ever sent a gift of jewels or of gold to Delphi?"

"Never."

"Or of kine or kid?"

"Never."

"Not even a young dove?"

"No," answered the poor innkeeper sadly, "not even a young dove, nor any other thing."

"And what then in the way of good didst thou do in thy life? Canst I think of ought?"

"I kept my tavern," the man said very humbly. "All people who passed that way used to relate how I kept it well serving the best always and caring well for beast and man."

"And getting thy reckoning?"

"Surely. Why not? 'Twas my due."

"The gods," was the reply, surly and scornful, "honor them not who for pay do their duty. Is that thy notion of the heavenly kingdom?"

Now was the innkeeper mightily put about at all this sharp questioning. In his heart he felt himself, not knowing nor asking why, to be verily worthy, but unable to give account of himself, he was embarrassed and shamefaced, till, at last, and getting his brains, he ventured to speak aloud in his own behalf respecting one thing he had thought of that might—he humbly deemed—be permitted to count for something.

"One thing I did," said he.

"Another duty doubtless. If that alone, spare thy breath."

"No, 'twas no duty; and in my business was of a truth a hindrance; for had I done it not, many who else would have tarried over night with me, or when Boreas ruled and the storms of winter raged, even longer, hied away quickly."

"And this great thing?"

"'Twas no great thing," replied the supplicant, "'twas only that beyond my gate where the ways parted, I set up a guide-board, and kept it there; two hands pointing, one to either town, one north, one east."

"Ha!" jeered the warder, "callest thou that a worthy thing? Now step down, for here cometh one who set up a golden shrine. By the glow upon his face I can tell 'twas at least as much."

The innkeeper in sore tribulation, confident, it is true, of his own parity, but all the while himself to be a mote in the sunbeams of Olympus, hung his head disconsolate.

Disconsolate, till he was aware of a new presence, and looking furtively up, perceived before him the aforetime surly warder, now with changed demeanor, and over against him a radiant being with the glow upon his face. His face I say, but as well might I have said her face, save that in the calm majesty of those deep eyes lay a couchant power, seldom found in woman.

"I am Themis," said the being calmly, and then at once both knew that here was one neither man nor woman, nor any other bodily shape, save as shape was taken because the eye was made to see. So also the being spoke (thought materialized), because in no other way was it given to the brain to hear.

"I am Themis," the being said, "and I have heard the contention betwixt ye two, warder of this eternal realm, and thou, oh new immortal."

"I am justice and knowledge. Fear not, for I tell thee that thou art welcome to this my holy hill. Thou didst not know, but I know; thou didst not understand, but I understand; thou didst not see, but I see."

"In the way of our judgments, of a truth, this warder sufficeth to judge of the results of duty, to tell the meaning of acts, and to reward according to the deeds done in the body. But 'tis mine, oh new immortal, to look deep into the heart, and into the mystery of motive."

"Now I look, and I behold, for all the fifty years of thy earthly life, keeping thy humble tavern in Argolis, that thou didst set up at the parting of ways beyond thy gate a simple guide-board. No law compelled thee to set it there, nor did law compel thee to keep it, with its two hands pointing, one north, one east."

"Dost know what came of this work of thine?" Themis gazed, friendly, into the new comer's eyes.

"I know not," was the answer, "save as I believe that from time to time it served to help some stranger."

"Stranger? Then 'twas not for thine own acquaintance and kinsfolk thou didst set the guide-board."

"Not so; for surely they know the way already."

"Hast thou enemies?"

"I have; some I know; more I am sure that I know not of,



because in my way of livelihood I turned not aside to fawn for the favor of any mortal."

"Could it then be that this guide-board was of use, not only to the stranger but to enemy of thine?"

"That I cannot say; doubtless many such passed by the inn."

"Behold!" went on the angelic being, and so speaking drew forth a scroll. "Behold here writ the record of the work of good that, unknown to thee, thy guide-board did!"

Then he who of late had been but a simple citizen of Argolis, not learned in the script of Cadmus, felt his eyes opened so that he was able to trace the record.

And he saw there inscribed the names of a hundred three score and five, whose lives during all the fifty years, while the guide-board had been set up, were saved by it: some were old, some mid-aged, some young. Those journeying to the north would have taken the way eastward, or, on their road to the eastern town would have wandered else to the north.

The lives of part of this multitude (as was duly set forth on the scroll) were saved from the hand of the enemy; of others from wild beasts on a strange road; of others still, from storm or pestilence.

Good, too, of many another sort the record showed; of sons restored to mourning families; of husbands to their wives; of fathers to their needy children; and further, of renewed hope in many a breast; of kindled sparks of human sympathy for all humanity, in that one being had been found to feel and (unknowing of all the deep significance of feeling) to show the divinity of humanity.

And, before the new immortal's astonished eyes, the scroll unrolled, and the record grew and grew, telling of the vast results of each saved life, of each throb of hope, of each happy turn of fortune.

Then Themis, smiling, said, cheerily: "This was all thy work. Though then thou didst not know, I tell thee that though men judge by the act, and even at Heaven's gate itself the warders call for gifts to Delphi and Diana, at my high court is nothing save motive reckoned.

Because thou hast loved the right, and hast loved thy neighbor, and the stranger, and even thine enemy, and because thou hast done unto them as thou wouldst have had them do unto you, I bid thee come up higher. Come!"

So speaking Themis turned, and the new immortal, glad but yet wondering, followed on satisfied.

#### MIDSUMMER.

BY LOUIS BELROSE, JR.

How sweet to listen to the dove

When all the rest forget to sing,

And watch the swallows wantoning,

And butterflies the gold whereof

Comes sinking through the skies above

Like feathers from an angel's wing.

What comfort in the proof they bring

Of perfect wisdom, perfect love.

Why is it when the heart is stirred

To praise of Him who rules on high,

Of Him who made our earth and sky

From nothing with a single word,

Why is it that the little bird

Will eat the butterfly?

All truly wise thoughts have been thought already thousands of times; but, to make them truly ours, we must think them over again honestly, till they take root in our personal experience.

—Goethe.

#### BOOK REVIEWS.

MADAME DE SEVIGNE. *Gaston Boissier*. Translated by Melville Anderson. Chicago: A. C. McClurg & Co.

The above is the first issue in a series of short critical works on "Great French Writers," which has attracted much attention and praise on both sides of the Atlantic. The American publishers, with commendable enterprise, have arranged to re-issue these works in a new translation by Prof. Anderson, who has acquired a favorable reputation for such work in his translation of Victor Hugo's Shakespeare. These works on noted French writers do not aim to give a complete biography, and deal less with the personal history of their subjects than with their literary labors. The opening volume on Mme. de Sevigne is fully indicative of the merits and interest of those to follow. Mme. de Sevigne has never been a favorite with us among her illustrious countrywomen, presenting the image of a graceful and amiable woman with an inordinate love—if mother-love can ever deserve to be so called—for a rather commonplace daughter. M. Boissier's work revives this image, but in a way which adds an unexpected charm and freshness to the subject. Mme. de Sevigne will be chiefly remembered as an incomparable letter-writer in a day when letter-writing was a studied accomplishment. The art is one that is rapidly dying out in the present day, whether ever to be revived in a succeeding period of less haste and waste than our own, remains to be seen. Mme. de Sevigne's life presents us with a clear picture of the social life of France succeeding that period of mingled intrigue, gallantry, and intellectual growth, marked by the Hotel de Rambouillet and the Fronde. In the subject of M. Boissier's sketch we have the picture of a woman of pleasing and lively disposition, not holding herself above the manners and ideals of her age but able to resist its temptations and avoid its dangers. C. P. W.

GEO. SAND. *E. Caro*. Translated by Melville B. Anderson. Chicago: A. C. McClurg & Co.

M. Caro's work forms the second in the series of "Great French Writers," republished, with a corrected translation of their own, by the firm whose imprint appears on the title page. We have not here a full account of the life, so full of rich and varied incident of George Sand, but a critical estimate of her writings and the literary and intellectual career of one of the most striking figures in modern times. M. Caro, rightly, we think, finds the secret of Geo. Sand's weakness and her false philosophy of life, in the fact, that she makes love—the love of man and woman—the dominating and justifying principle of human conduct. It is true, as the author points out, that she defends herself in this by the claim, that all love is of divine origin, but in her application of this theory she so confounds the divine essence with the selfish, human passion, that all true distinctions are lost, and serious harm is done. "Sensual Ideality—such is the secret vice of almost all the love passages in Mme. Sand," says her latest critic. "The one thing needful to this mind," he adds, "so strong, so rich in enthusiasm, is a humble, moral quality—viz., resignation." This is a virtue impossible where passion reigns, which proclaims its right to destroy and ignore all conventional bonds. But though he speaks plainly on this portion of his subject, M. Caro is too just and sympathetic a critic to stop here, and has many a word of wise and enthusiastic praise for the author of *Consuelo*. He lets her speak for herself as much as he can, and she nowhere does this better than in a letter to Flaubert,—one of the forerunners of the naturalistic school which was to replace the romance-period of which she stood at the head. "Retain your faith in form," she says to this over-nice manipulator on words, "but occupy yourself more with substance." "Form," she tells him, "is but an effect; not an end. A novel must be first of all human, and cannot be saved by being well-written." C. P. W.



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

## CHAPTER XXII.—Continued.

Knips prepared himself for his first lesson. He began by drawing forth his paint-box, several complete letter-writers, and a book or two on etiquette. He painted several coats of arms, and from the books he abstracted some respectful forms of speech, such as the servile language of our Government officials have sanctioned in intercourse with the great, and learnt them all by heart. At the proper hour he presented himself to the Chamberlain, polished and fragrant, like a flower whose strength of stem had been extracted by the heat of the midday sun. Thus he was brought into the presence of the Prince, and almost withered into nothingness as he approached the chair in which he was to sit; he began his lecture by drawing out of a small portfolio a design of the Prince's ancestral coat of arms and a sketch of the Chamberlain's armorial bearings; he laid them before the Prince with the deepest reverence, and added his first explanations.

His lecture, to use the Chamberlain's own words, was magnificent; his obsequious arabesques which wound themselves into his discourse were prolix, it is true, but not disagreeable; they were comical, yet well-suited to the scrolls he was lecturing on. He frequently brought drawings, and books on heraldry, and engravings from the library for inspection, and showed himself more thoroughly informed than was, perhaps, necessary. If he chanced to fall into historical discussions, which were more interesting to him than his hearers, the Chamberlain would simply have to raise his finger, and Knips respectfully resumed the proper topic. The gentlemen took more pleasure in his lectures than in many of those given by the Magister's patrons. The lessons were continued throughout the term, for it was discovered accidentally that Knips had a good deal of knowledge of tournaments, tilting, and other knightly amusements. He told the Prince about the old festivities of his noble house, described the ceremonial accurately, and even knew the names of those who had assisted at them. His knowledge appeared wonderful to his hearers, though it cost him little trouble to collect this information. At the conclusion of the course he was richly rewarded, and his hearers regretted that this strange figure, with his old-fashioned knowledge, was no longer to lecture before them.

"Look here, mother," cried Knips, entering his room, and taking a small roll of money out of his pocket; "that is the largest sum I have ever earned."

The mother rubbed her hands. "My blessing upon

the gracious gentlemen who know how to value my son!"

"To value?" replied Knips, contemptuously. "They know nothing about me or my learning, and the less one teaches them the better they are pleased. It is a labor for them even to look for what stands at everybody's disposal, and what has been put in hundreds of folios is new to them. I treated them like little boys, and they did not find it out. No, mother, they understand how to value me even less than the Professor world here. No one appreciates my knowledge. Yes, there is one that does," he murmured to himself, "but he has more pride than the Chamberlain. The Chamberlain seems to wish to inform himself about the old tilts and masquerades; I will send him my little edition of Rohr as a present. There is so little in it that it is good enough for him. I bought the book for four groschens; the parchment is still tolerably white. I will wash it with sal-ammoniac, and paste his coat of arms into it. Who knows what may come of it?"

He cleaned it, and prepared his paints.

"The world is full of tricks, mother. Who would have thought that I could have earned anything by this old absurd nonsense of heraldry?" He drew and painted at the coat of arms. "I have seldom brought gold into the house, and then it was always for underhand traffic that did me no honor." Here he broke off. "I will once more put on my livery when I take him the book, then put it out of sight."

\* \* \*

In the district of Rossau the road surveyors put up their stakes, and at the University, Magister Knips placed the white pig's-skin binding in the hands of his illustrious patron.

Ilse rejoiced that the road to her father's estate would be useful to every one, and the professor heard with interest that the man whom he had recommended had succeeded well, and he smiled kindly at the expressions of gratitude tendered by the Magister. But for the good formation of the new road, and the approved dexterity of the little man, the happy couple, who in both cases had hit upon the right person, were to receive thanks that they did not desire.

## CHAPTER XXIII.

## PHILOPENA.

One evening Ilse had placed the last remaining dainties of the holiday season on the table; Laura was rattling an uncracked almond, and asked the Doctor whence arose the time-honored custom of Philopena. The Doctor doubted the antiquity of the custom and could not explain its origin at the moment, but he was evidently perplexed at his uncertainty in the matter.

\*Translation copyrighted.



Thus, he neglected to request the mutual pledge of the double almond. Laura cracked the shell and carelessly laid two almonds between him and herself, saying: "There they are."

"Shall we share them?" cried the Doctor, gaily.

"If you like," replied Laura, "giving and taking, as is usually done. But it must be only in joke," she added, thinking of her father; "and no presents."

Both ate the almonds with the laudable intention of losing the game. The consequence was that the affair did not advance. Laura, in the course of the following week, handed books, tea-cups, and plates of meat to the Doctor. He was dumb as a stick, and never said, "I am thinking of it." Had he forgotten the agreement, or was it his usual chivalry? But Laura could not remind him of his forgetfulness, otherwise she would win the philopena. She again became very angry with him.

"The learned gentleman does not hand anything to me," she said, to Ilse; "he treats me as if I were a stick."

"It must be unintentional," replied Ilse; "he has forgotten it long ago."

"Of course," cried Laura; "he has no memory for a pretty joke with such an insignificant person as I am."

"Make an end of it," advised Ilse; "just remind him of it."

It so happened that the Doctor, on one occasion, could not avoid picking up a pair of scissors, and handing them to her.

"I am thinking of it," said Laura; and added, pertly, "that's more than you do."

After that she offered the Doctor the sugar-bowl; the Doctor took a piece of sugar out civilly, but was silent.

"Good morning, philopena," she cried, contemptuously.

The Doctor laughed, and declared himself vanquished.

"It is not very nice of you," continued Laura, eagerly, "to have cared so little about your philopena. I will never eat one with you again; there is no honor in winning from gentlemen who are so absent-minded."

Shortly after, the Doctor handed her a small printed book in beautiful binding. On the first page there was written, "For Miss Laura," and on the second, "The Origin of Philopena; a Tale." It was the history of the beautiful daughter of a king, who liked to crack and eat nuts, but would not marry; she accordingly invented the following stratagem. She presented to every prince who sought her hand—and they were countless—the half of a double almond, and she ate the other half. Then she said; "If now your High-

ness can compel me to take something out of your hand without saying the words, 'I am thinking of it,' I shall consent to marry you; but if I can induce your Highness to take something from my hand without saying these words, your Highness shall have your princely head shaven and forthwith leave my country." But there was a trick in the fulfillment of this contract; for according to the customs of the court no one could put anything into the beautiful Princess's own hand on pain of death, but he must give it to the lady-in-waiting and she would hand it to the Princess. But if the Princess herself chose to take or hand something, who could prevent her? Thus it became a bitter pleasure for the wooers. For however much they might endeavor to induce the Princess to take something out of their hands without the intervention of the lady-in-waiting, the latter always interposed and spoilt their best-laid plans. But when the Princess wished to get rid of a suitor, she was so gracious to him for a whole day that he was quite enchanted; and when he sat next to her, and was already intoxicated with joy, she took, as if by accident, something that was near her,—a pomegranate, or an egg,—and said, softly, "Keep this in remembrance of me." As soon as the Prince took the thing in his hand, and perhaps was preparing to say the saving words, the thing burst asunder, and a frog, a hornet, or a bat, flew out towards his hair, so that he drew back frightened, and, in his fear, forgot the words; whereat he was shaven on the spot, and sent about his business.

Thus years had passed, and in all the kingdoms roundabout, the princes wore wigs,—these have since become fashionable. Then it happened that the son of a foreign king, while traveling upon some business of his own, by accident saw the almond-queen. He thought her beautiful, and at the same he took note of the artifice that had ruined the hopes of her former suitors. Now a little grey dwarf in whose favor he stood, had given him an apple, at which he might smell once every year, and then a clever idea would occur to him. He had, therefore, become very famous amongst all kings on account of his clever ideas. Now the time of the apple had come; he smelt, and at once this bright thought came him: "If you would win the game of giving and taking, you must under no conditions either give anything to her or take anything from her." And so he had his hands firmly bound in his girdle, went with his Marshal to court, and said he also would be glad to eat an almond. The Princess was much pleased with him, and had the almond handed to him. His Marshal took it and put it in his mouth. Then the Princess inquired what that meant, and why he always carried his hands in his girdle. He answered that his Court customs were even stricter than hers; and he must not take or



give anything with his hands, but only with his feet or head." The Princess laughed, and said:

"In this way we can never manage our game!"

He shrugged his shoulders and answered:

"Only in case you will condescend to take things from my boots."

"That can never be," cried the Court in chorus.

"Then why did you come here?" exclaimed the Princess, vexed, "if you have such stupid customs?"

"Because you are so beautiful," returned the Prince; "and if I cannot win you I can yet look upon you."

"I can say nothing against that," answered the Princess.

So the Prince remained at Court, and came to please her more and more. But as she too was of a mischievous disposition, she endeavored in every way to mislead him and persuade him to draw his hand out of his girdle and take something from her. She conversed much with him, and made him presents of flowers, bonbons, and smelling-bottles, and at last even of her bracelet. Many times his hands twitched, but he felt the pressure of the belt and recollected himself, nodded to the Marshal who collected the things, and said:

"We think of it."

Now the Princess became impatient, and so one day she began after this fashion:

"My handkerchief has fallen down; could your Highness pick it up for me?"

The Prince took the handkerchief by the ends of his toes and waved it; the Princess bent down, took the handkerchief from his feet, and cried out, angrily:

"I am thinking of it."

A year had passed thus, and the Princess said to herself, "It cannot continue so; an end must be made of the affair, in one way or the other." So she began thus to the Prince:

"I have the loveliest garden in the world, which I will show your Highness to-morrow."

The Prince smelt at his apple again. When they came to the garden the Prince began:

"It is wonderfully beautiful here; that we may be able to walk together in peace, and not be disturbed by our game, I beg, my dear Princess, that you will adopt my Court custom, if only for an hour, and allow your hands to be bound. Then we shall be sure of each other, and nothing vexatious can happen to us."

This did not please the Princess, but he entreated and she could not refuse him this trifle. Thus they walked together, with their hands bound in their girdles. The birds sang, the sun shone warm, and from the branches the red cherries hung down almost touching their cheeks. The Princess looked up at the cherries, and exclaimed:

"What a pity it is that your Highness cannot pluck some of them for me."

The Prince answered, "Necessity is the mother of invention;" and seizing a cherry with his mouth he offered it to the Princess. Nothing remains for her but to put her mouth to his in order to take the cherry, and when she had the fruit between her lips, and a kiss from him in addition, she could not at the moment say, "I am thinking of it."

Then he exclaimed, aloud, "Good morning, *Philopena*," drew his hands out of his girdle and embraced her; they were of course married and if they have not since died, they still live together in peace and happiness.

This story the Doctor had written and caused to be printed especially for Laura, so that no one else could have the book.

Laura carried the book to her private room, looked with pride on her name in print, and repeatedly read the foolish little story. She walked to and fro reflecting; and when she thus considered her relations with Fritz Hahn, she could not feel easy in her conscience. From her childhood she had been under obligations to him; he had always been good and kind to her; and she, and still more her father, had always caused him vexation. She thought penitently of all the past, up to the cat's paws; the indefinite feeling she had concerning the "*Philopena*" was now clear to her; she could not be as unembarrassed as she ought to be, nor as indifferent as she would wish, because she was always under the heavy burden of obligation. "I must come to an understanding with him. Ah! but there is a barrier between him and me,—my father's commands." She revolved in her mind how, without acting against his commands, she could give the Doctor some pleasure. She had ventured something of the kind with the orange-tree; if she could devise anything that would remain unknown to those over the way there would be no danger; no tender relations and no friendship would arise from it, which her father might wish to avoid. She hastened down to Ilse, saying, "My obligations to the Doctor oppress me more than I can express; it is insupportable to feel myself always in his debt. Now I have bethought me of something which will bring this state of things to a conclusion." "Take good care," replied Ilse, "that the affair is really brought to a conclusion that will stand in the future."

(To be continued.)

Banish gloomy fancies and dark forebodings. A majority of expected and dreaded ills never come, and in anticipating and fearing them we make needless shadows for our lives.

Every virtue that is admirable in woman is equally admirable in man.

Virtue, temperance, sweetness of temper, love and charity are of no sex, but shine equally in all.—*Elmina Drake Stenker.*



## NOTES.

The essays by M. Alfred Binet on the Psychic Life of Micro-organisms will be continued in No. 55. Originality of research and correctness of inference as to psychic phenomena, especially mark the articles to follow.

MORRISON I. SWIFT.

In No. 23 Morrison I. Swift makes a vigorous appeal to the churches that they become actively interested in what is generally known as "The Social Problem," and that they take the lead in Christianizing the people after the manner practiced by Jesus in Judea and by his disciples, as related in the New Testament. Mr. Swift's language is clear, eloquent, pervaded by an ideal humanitarianism, and is not only respectful to the clergy but even reverent. He thinks the opportunities of the present and the future are in the hands of the churches, and that the clergy may lead the van of social progress instead of trailing along behind the baggage wagons, as they have so long been contented to do. "In this country," he says, "where the church has the allegiance of so large a portion of the people, where it represents a large proportion of the specially organized moral forces of the land, where finally its material resources are almost unlimited and the money power of the country is its friend and supporter, it would be possible for the church to bring about the reform that is needed, with little difficulty, if it desired to do so." Here Mr. Swift is confronted with the important objection that should the church take the lead in the social revolution or even in social reformation so far as "to establish such fair distribution of the products of human industry that superabundance and luxury will not exist," the "money power of the country" would cease to be its "friend and supporter" and the clergy might cease to be a priesthood. He presents the difficulty thus: "It is said by some that the pulpit will not go much beyond those who maintain it. This is to acknowledge that the opinions of the clergy are to-day bought and paid for, just as lawyers are hired and legislators sent to uphold the ideas of their constituency." Notwithstanding this difficulty, Mr. Swift sees "a slumbering lion in the Christian ministry, which will, ere long, awaken and put forth its formidable powers for the poor and the oppressed."

Two other essays by Morrison I. Swift, are contained in Nos. 32 and 44. In the one he speaks of *The Scholar as a Reformer*, and in the other of *The Masses as Reformers*. The scholar has imbibed something of the historic spirit; he perceives, moreover, that the change in human institutions must ever be along the line of the moral and the ideal. Life can not be conceived in its full import, until the individual comprehends himself as the bearer of the rare essence and as containing, in no merely figurative way, the temporal hereafter. It is the mission of the scholar to reveal the larger and encompassing world of his soul, not of the bookish professional scholar but of him who has sought a profound comprehension of the meaning of life in its complexity and breadth. He must guide the masses, he must clear away the mystifying creeds and establish the truth that all men are born to live moral and beautiful and expanding lives in whatever sphere they may labor.

Mr. Swift considers the masses as the raw material for reform. There are rich people who think that general betterment means loss to them. But to dread reform is to misunderstand. Whatever is imperfect in society is injurious to all classes. A reform at one point reaches every point. The essayist sets great hopes on the masses—indeed, hopes too great, which may prove illusions. "Their minds," he concludes, "are more fluid and therefore they are more capable of growth into a surviving harmony with the conditions of life than those whose adaptations were formed earlier and in less enlightened times. . . . They are to become an infinitely more important factor in the life of the race than ever before." . . .

GEORG VON GIZYCKI.

In Nos. 25 and 26 is presented a very scientific article entitled "Determinism versus Indeterminism," by Georg Von Gizycki, Professor of Philosophy at the University of Berlin. This is in answer to Professor William James of Harvard University, who, in a lecture published in the *Unitarian Review*, had maintained the doctrine of *indeterminism*. The whole inquiry relates to the Freedom of the Will, and the terms are thus explained:

"The question whether the actions of the will are phenomena which act in conformity to a law, admits of only two answers—yes and no.

The philosophic theory which holds that they do, has been called *Determinism*; that which says they do not is known as *Indeterminism*."

The argument, which is deeply philosophical throughout, and in some parts of it a demonstration, proceeds upon the theory that the human will is under the control of law, and that its actions are *determined* by necessity; that Freedom of the Will is never an accident, nor the offspring of caprice; that the reformation of an evil-doer is made by surrounding him with conditions whose laws will compel his will to act in the right way.

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A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

Entered at the Chicago Post-Office as Second-Class Matter.

OFFICE, 169-175 LA SALLE STREET.

No. 54. Vol. II.—28.

CHICAGO, SEPTEMBER 6, 1888.

{ Two Dollars per Year.  
Single Copies, 10 cts.

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EDWARD C. HEGELER.

The founder of THE OPEN COURT says in his article, "What the Monistic Religion is to Me," published in No. 25, page 725: "Religion is to me my relation, my union, to the All,—the idea that I am a part, a phenomenon thereof, that I, feel myself to be such, and that my actions are determined by ideas based on this fact. For millions of years the great whole has been in action, gradually developing out of the simplest animal forms the civilized man with the ever richer soul-structure in his brain. Whatever promotes this work is good, whatever obstructs or retards it, is bad. The reason why this progress is *good* is that the great All acts thus here on earth. That it is what in the ethical sense we call good. As modern psychological investigations show that "to will" and "to act" are identical (see Ribot, *Diseases of the Will*), it seems to me that fundamentally the old religious dogma, "that is good or right which is the will of God," is true, and *not* the theory of happiness and perfection. Our idea is that THE OPEN

Court shall definitely pronounce our religious opinion, and if this is erroneous, we wish to be refuted and we will publicly correct our errors."

FR. HELBIG.

In Nos. 22, 23 and 24 is a deeply philosophical essay, "The Fool in the Drama," by Franz Helbig, another German scholar whose works refer to the History of Civilization. In this essay are shown in a delightful way the wisdom and the folly of the fool in the drama, and his value, not only to the body politic, but to the morals of human life. In the folly of the fool in the drama we see our own folly; and the satire of the fool administered in jest leaves a lesson behind it that makes us think seriously when he laughter is done.

WHEELBARROW'S essays are contained in the following numbers of THE OPEN COURT:

Chopping Sand.....	page 353 in No. 13
The Laokoon of Labor.....	" 410 in No. 15
The Poets of Liberty and Labor. THOMAS HOOD.....	" 461 in No. 17
To Arms.....	" 615 in No. 22
The Poets of Liberty and Labor. Continued.	
GERALD MASSEY.....	" 745 in No. 26
Making Scarcity.....	" 901 in No. 34
Economic Conferences. I. A review of Geo. A. Schilling's lecture.....	" 950 in No. 37
Economic Conferences. II. A review of Lyman J. Gage's lecture.....	" 993 in No. 40
Economic Conferences. III. A review of T. J. Morgan's lecture.....	" 1104 in No. 47

"WHEELBARROW" speaks to the laboring men from the standpoint of a laborer, although he does not work with a shovel and wheelbarrow now. In his first essay, published in one of the early numbers of *THE OPEN COURT*, he says: "I sign my name 'Wheelbarrow' because that is the implement of my handicraft or was when I was a strong man. I was by profession a 'railroad man'; my part in the railroad business was making the road-bed by the aid of a pick, a shovel and a wheelbarrow." We quote this passage because from our personal acquaintance with "Wheelbarrow" we understand that it is literally true.

"Wheelbarrow" treats the labor question in a manner peculiarly his own, with illustrations drawn from every-day experience and presenting a moral which may be seen at a glance. He advises the working men in a friendly, persuasive way, and criticises many of their methods of reform as harmful to themselves, tyrannical and unwise. These essays have been much admired, not only by the working men, but also by men eminent in American literature. In an editorial article on "Wheelbarrow," the *Boston Herald* said: "He possesses in a striking degree the rare ability of being able to treat of complicated matters in so lucid and simple a manner as to make them easy of comprehension to those who have never before given the subject much thought. Last year he published a series of tracts on the labor question which were widely read, but not half so widely as they deserved to be. Treating of his subject from a working man's standpoint, he displayed an extraordinary wealth of apt but homely illustrations."

E. P. POWELL.

The American scholar, E. P. Powell, gives his views on "Language" in Nos. 24 and 26. He maintains that language, as a means of communication, is possessed by all the animal creation, even down to the lowest in the scale of being; that all communicate with one another; that all of them have a language to express their wants and especially to express hunger. This lies at the root of the principle of evolution, because "organic development is necessitated in the direction of organic power to express—to speak."



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## BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M.D.

Part XIV.

### SOIL AND CLIMATE.

In the lower latitudes of the temperate zone the short winter ends about the middle of March, and in the course of the next following ten weeks the revival of nature spreads from the gates of tropics to the borders of the arctic circle. That progress is the symbol of a biological secret. The phenomenon of life originated in the home of perennial summer, and only in the course of successive ages the struggle for existence, on a more and more crowded soil, forced plants and animals to colonize the regions of the higher latitudes. Like the first spring-flowers that re-appear before the return of the migratory birds, plants were probably the pioneers of that northward (or rather pole-ward) migration. Next came birds; next reptiles and mammals; and the advent of man in the winter-lands of the upper latitudes is a comparatively recent event. Man, as a habitant of the snow-lands is, indeed, as yet only half acclimatized. Our instincts and day-dreams still turn towards the sunnier homes of our forefathers. We have to mitigate the uncongenial rigor of winter by all sorts of artificial contrivances, and the moral and physical characteristics of our early ancestors can best be studied in the habits of the primitive natives of the equatorial summer-lands.

Thrift can hardly have been a prominent virtue of our semi-sinian forefathers. The spontaneous abundance of a soil that produced perennial crops of tree-fruits, berries, and nuts, enabled its children to dispense with habits of economic prudence. Even now such habits are comparatively rare in the more fertile regions of the warmer latitudes. The negroes of the lower Congo rarely think it worth while to till their weed-encumbered maize-fields, and in years of scant crops eke out a living by fishing and berry-gathering. The Veddahs, or forest-dwellers of the Ceylon coast-plains, roam the woods like monkeys, living on such vegetables and edible insects as the seasons happen to provide. They build no houses, they wear no clothes and approach the dwellings of their agricultural neighbors only in times of scarcity, but at sight of a stranger

generally fly to the jungle with shrieks resembling the alarm-cry of the wanderer-ape. Even in Mexico thousands of half-wild forest-nomads live from hand to mouth, relying on luck to replenish their stomachs before hard times reach the extreme of actual famine. A colony of Swiss peasants in the state of Oaxaca was frequently visited by mendicant delegations of their shiftless neighbors, whose wants they repeatedly relieved by the simple expedient of laying in a store of *pasas secas* or wild grapes, dried and pressed like layer-raisins. "Why don't you put up a whole year's supply of such stuff?" a well-meaning colonist asked one of the improvident natives. "It wouldn't take you much more than a couple of weeks, would it?" "Not much, Señor," said the Indio; "but it would be hard work, and times have got better now."

Thrift, though, develops in the more sterile parts of the tropics as readily as in the frigid latitudes. In the foothills of the Atlas Mountains troops of natives range the ravines in quest of edible gums ("manna"), which they store in earthenware jars, together with the produce of small hill-gardens, tilled and watered with indefatigable perseverance. The Arabs of the Soudan undertake trading-expeditions to the far high-land of the upper Nile, and even to the west-coast of the continent, braving hardships and deadliest climates in the hope of accumulating the means of modest independence. The natives of the Canary Islands devote years of toil to their ideal of comfort in old age, and in parsimony and mercantile shrewdness are said to surpass the wildest Portuguese traders. The Turks have a proverb, that "one Greek can outwit ten Moslems and one Armenian can cheat ten Greeks," and Armenia in the next neighborhood of the torrid plains of Western Persia, is, indeed, a home of thrift in a sense of the word rarely realized in the most mercenary households of the London Jewry or the closest-fisted community of North Holland coast-traders.

"Freedom," says an American orator, "is a flower that flourishes best in the snow;" and the liberty-love of mountaineers is as proverbial as their patriotism. Freemen, however, are found in the burning plains of Araby, as well as on the frosty mountains of Switzerland, and a study of international analogies would lead to the far more correct conclusion that *the love of independence is a characteristic of sparsely-settled countries.*

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The desert-dwellers of the Soudan, of Tartary, Afghanistan, Western Mexico, and Patagonia, have preserved their liberty as effectually as the highlanders of Scotland and Montenegro, and the homes of independence which, like social oases, are found here and there in the midst of despotic empires, are nearly always either thinly settled plains or specially inaccessible uplands. The power of the Czar has been for centuries defied by the wild Cossacks of the Donian steppes. The mountaineers of Luristan have never acknowledged the authority of the Shah, and can rarely be induced to pay even the nominal tribute promised by their chief emir as the price of exemption from military service. The highlanders of the Spanish Pyrenees still insist on the privilege of their *fueros*, or local autonomies, which the lower provinces of the Peninsula were forced to renounce centuries ago. The hill-tribes of Wales have maintained a similar independence, and at this moment (July 1888) are fiercely resisting the payment of tithes in support of the established Anglican Church. The Hungarian spirit of national independence has always found its chief strongholds among the half-nomadic herders of the *Pusta*—the great pastoral plain, extending from Budapesth to the threshold of the Iron Gate. Ice, *per se*, would seem to form a rather brittle bulwark of national independence. In the thickly settled lowlands of Central Russia not freedom only, but the very desire of freedom, appears to have been stamped out by ages of despotism. Overpopulation has tamed the once stubborn mountaineer of the Silesian highlands; the flower of freedom has ceased to "flourish in the snow" of Finland and Poland. Still, the love of independence is a primitive and deep-rooted, the love of industry a factitious and comparatively recent virtue. At every favorable opportunity the subjects of despotic governments are apt to throw off their yoke and revert to the freedom of the *Juventus Mundi*, the golden age of sheltering woodlands and free hunting-grounds. Industrial nations, on the other hand, continue to produce a considerable percentage of incurable idlers—"waiters on Providence," who prefer intermittent distress to constant toil, and accept comfort only as the free gift of Fortune. Such drones are found in Russia and Canada, as well as in Spain, but are rather rare in communities where self-help is the only alternative of starvation.

With more invariable distinctness the influence of climate asserts itself in the contrast of mysticism and rationalism. The skeptic Condorcet suggests that the enforced indoor-life of northern nations may have favored mental activity and its consequent protests against the spook-traditions Grandmother Church; but a tendency to mysticism appears rather a natural concomitant of a fervid climate, and irrespective of

outdoor or indoor life, would seem to have biased the secular as well as religious literature of all southland nations. Convents, with their enforced habits of seclusion, were nowhere more numerous than in Buddhist India, the birthland of monastic celibacy, and the constant mental activity of millions of pundits and enthusiasts resulted chiefly in vagaries:—lucubrations nearly as worthless from a scientific point of view as the recorded ravings of a lunatic convention. With the exception of a few works on grammar and rhetoric the vast literary treasure-halls of Buddhism and Brahmanism are filled chiefly with day dreams: Biographies of imaginary kings, chronicles of imaginary saints, travels in phantom-land, records of extravagantly absurd prodigies and miracles—fancy running riot in constant defiance of common sense. The Buddhist scriptures abound with supernaturalism to a degree sufficient to surfeit a Spanish nunner; but in China the same religion already begins to sacrifice myths to morals, and the Japanese Nahagathas, or Buddhistic Protestants, have retained only the principle of pessimism, and regard the miracle-legends of their orthodox brethren very much as a Unitarian clergyman would regard the monk traditions of southern Italy.

Comparative mythology has clearly demonstrated the Indian origin of Grecian polytheism; but in the climate of Attica the seven thousand gods of the Brahmins were gradually reduced to five or six dozen, and the freethought of Diagoras and Lucretius often rises to the regions of pure pantheism, palliated by prudential, rather than reverential, concessions to the prejudices of influential conservatives.

The doctrine of Zerdusht (Zoroaster) is the parent both of Judaism and Islam, but the Unitarian zeal of the great Hebrew lawgiver and his Arabian successor failed to eradicate the mythological tendency of their followers, who in default of pantheon-sagas amused their fancy with tales of ghins and angels, miracle-stories and mysterious prophecies. Prior to the advent of Mohammed the religion of his countrymen seems to have been almost as fantastic as Brahmanism.

They worshipped an incarnation of the Moon, a lunar spectre that had frequently visited the hills of Yemen in the form of a white lioness, and now and then in the guise of a veiled girl. The sun, too, was supposed to indulge in such metamorphoses. On one occasion an ancestor of the prophet had been frightened by a radiant bird that pursued him with fierce screams, demanding a vow of celibacy, to prevent the birth of a boy destined to overthrow the altars of the sun-priests. Stars, serpents, and demons, were likewise apt to interfere in the concerns of mankind, and had to be propitiated with frequent gifts.

Those gifts are now reserved for the temples of



Allah, but the hearts of the southland population have remained with their idols, and in the night-camps of the Bedouins ghost-legends and wonderland stories are still as popular as in the times of their moon-worshipping forefathers.

The Hebrew exiles, on the other hand, have assimilated the rationalistic tendencies of their adopted homes. The ideal of monotheistic purism has been most perfectly realized in the synagogues of North America, certainly more perfectly than in any part of ancient Palestine.

(To be continued.)

#### SHELLEY'S ATHEISM.

ALVAN F. SANBORN.

It was a popular fallacy that Shelley was an Atheist. Like most popular fallacies this is a half-truth, and half-truths possess an astonishing vitality. Charles Dudley Warner, in the *Princeton Review* of November last, states what he considers Shelley's religious position very clearly. He says: "He did not deny God, but he did deny the God of Christianity as he understood Him." An Atheist denies God, and may exist in a country where the Bible and Christianity have never been heard of. There have been such in all countries and ages.

That Shelley then was not an Atheist a very slight study of his works will prove to us. Mr. Warner is right, however, in saying that Shelley did deny the God of Christianity, not so much though as he understood Him, from his own study of the Bible, but as he understood the theologians to understand him. It cannot be denied that Shelley often quite misunderstood the theologians, but the religion he protested against was, notwithstanding, in its general features that accepted by the church at the time. In his prose works, the real hostility to Christianity is most strongly affirmed, especially in the "Necessity of Atheism," "Letter to Lord Ellenborough," "Letter on the Trial of Richard Carlile," "Refutation of Deism," and "Proposal for a Religious Association." This hostility is naturally a less conspicuous and more subtle element in his poetry. Here it is sometimes necessary to read between the lines to discover it, but it is never lacking. He wrote three great poems of revolt: "Queen Mab," "The Revolt of Islam," and "Prometheus Unbound." These are interesting as showing the different forms with which he clothed his hostility at three different periods of his life. He had learned a great deal between the "Queen Mab" and "Prometheus Unbound," but the same fiery spirit of revolt animates both—a spirit in his early years entirely uncontrolled, but toward the end of his life, when the "Prometheus" was written, toned down and trained to do his bidding. Here in the "Prometheus," what might be

offensive if boldly stated, is skilfully disguised beneath the garb of the old mythology. That he might not be looked on as an Atheist (in the true sense of the term), Shelley took the precaution of appending a note to that verse of "Queen Mab" beginning, "There is no God," etc. "This negation," he says, "must be understood solely to affect a creative Deity." So in the preface to the "Revolt of Islam": "The erroneous and degrading idea which men have conceived of a Supreme Being, for instance, is spoken against, but not the Supreme Being itself." This same preface would have applied equally well to "Prometheus Unbound," where Zeus stands for the "erroneous and degrading ideas which men have conceived of a Supreme Being, not the Supreme Being itself," nor as Mr. Warner would have us believe for "Anarchy."

Those men who at the beginning of the century rejected Christianity were for the most part materialists. We would naturally expect Shelley to take sides with them. But in a letter to Horatio Smith he says: "I agree with him [referring to Moore], that the French and material philosophy are as false as they are pernicious." He was a firm believer in Berkeley's theory, and in "Hellas" he puts into the mouth of Ahasuerus a poetic version of it. In other poems we find the same thing stated in more general and less philosophical terms. Thus in "Adonais":

"Peace, Peace! he is not dead, he doth not sleep—  
He hath awakened from the dream of life—  
'Tis we, who, lost in stormy visions, keep  
With phantoms an unprofitable strife,  
And in mad trance strike with our spirit's knife  
Invulnerable nothings."

In the "Conclusion" of the "Sensitive Plant" is the same idea:

"It is a modest creed, and yet  
Pleasant, if one considers it,  
To own that death itself must be,  
Like all the rest, a mockery.  
"That garden sweet, that lady fair,  
And all sweet shapes and odors there,  
In truth, have never passed away:  
'Tis we, 'tis ours are changed! not they."

That these verses are not mere freaks of fancy, but sound convictions, he tells us in the essay "On Life." "I confess that I am one of those who am unable to refuse my assent to the conclusions of those philosophers, who assert that nothing exists but as it is perceived. . . . Those who are subject to the state of reverie feel as if their nature were dissolved into the surrounding universe, or as if the surrounding universe were absorbed into their being. They are conscious of no distinction. And these are states which precede, or accompany, or follow an unusually intense and vivid apprehension of life." Shelley confesses in another part of this essay that he was for a *very short time* captivated by materialism, a system which he says allows its disciples to talk and dispenses them from think-



ing." This is, of course, true. Shelley is the best historian of his own philosophy. It is true so far as his *philosophy* is concerned, but materialism never got the slightest hold on his *poetry*. "Queen Mab," which represents by his own admission his immaturity, has nothing of it. As a poet he is from first to last a transcendentalist. His poetry was not and could not be materialistic, because it was not in the nature of the man. The nature which would not permit him to remain a materialistic philosopher, made his poetry immaterial and spiritual, even for the brief time that he was a materialistic philosopher. And it took only a little while for poetry and philosophy to become indissolubly and indistinguishably blended.

Shelley was hardly of this earth earthy. I can think of him only as a fiery, disembodied spirit. He is the most spiritual of the poets, in that he more than any other has attempted (how vainly, but how beautifully!) to "express the unutterable." His life was one vast uninterrupted yearning after the infinite, an incessant hungering and thirsting after righteousness. His life and his poetry are one. He is walking in the garden. There in the exquisitely delicate and fragile sensitive plant, he sees the embodiment of his own quivering spirit:

"But none ever trembled and panted with bliss  
In the garden, the field, or the wilderness,  
Like a doe in the noon-time with love's sweet want,  
As the companionless Sensitive-Plant.  
— — —  
It loves, even like Love, its deep heart is full,  
It desires what it has not, the beautiful!"

He is roaming aimlessly through the fields, lost in deep reverie. Suddenly the song of the skylark startles him—the skylark that seems fairly to float in its own swelling music, so prodigal is it of its melody. Shelley feels his own impotence:

"Teach me half the gladness  
That thy brain must know,  
Such harmonious madness  
From my lips would flow,  
The world should listen then as I am listening now."

We read; and feel as Shelley felt. He feels the cool breeze upon his forehead. It does not soothe him, for at once he longs to soar upon the wings of the west wind:

"O lift me as a wave, a leaf, a cloud!  
I fall upon the thorns of life; I bleed!  
A heavy weight of hours has chained and bowed  
One too like thee, tameless, and swift, and proud.

"Make me thy lyre even as the forest is:  
What if my leaves are falling like its own!  
The tumult of thy mighty harmonies  
Will take from both a deep, autumnal tone,  
Sweet though in sadness. Be thou, spirit fierce,  
My spirit! Be thou me, impetuous one!"

His eye is arrested by the scudding cloud. It is enough; the storm-cloud must be his chariot, and he must career through space. He cries out:

"O that a chariot of a cloud were mine!  
Of cloud which the wild tempest weaves in air,

When the moon over the ocean's line  
Is spreading the locks of her bright gray hair!

"O that a chariot of a cloud were mine!  
I would sail on the waves of the billowy wind  
To the mountain peak and the rocky lake,  
And the — — — — —"

He breaks off in utter despair of giving vent to the yearning within him. Thus the poem always remained. He could never finish it. He is sitting in the twilight by the window of his Italian villa. Strains of uncertain music float in from the distance. At once he loses himself in ecstasy:

"I pant for the music which is divine,  
My heart in its thirst is a dying flower;  
Pour forth the sound like enchanted wine,  
Loosen the notes in a silver shower;  
Like a herbless plain for the gentle rain,  
I gasp, I faint, till they wake again.

"Let me drink of the spirit of that sweet sound;  
More, O more!—I am thirsting yet;  
It loosens the serpent which care has bound  
Upon my heart, to stifle it:  
The dissolving strain, through every vein,  
Passes into my heart and brain."

How his spirit burns itself with unutterable desire for that which is itself unutterable! "Alastor" is the wail of passionate longing never satisfied. "Epipsychidion" is the plaint of a spirit chained fast to earth in full view of the glories of Heaven. It is mingled pain and pleasure; pleasure in the sight, pain because of the bonds. The closing lines show the intensity of anguish.

"The winged words on which my soul would pierce  
Into the heights of love's rare universe,  
Are chains of lead around its light of fire,  
I pant, I sink, I tremble, I expire!"

The moth that rushes into the flame it loves, only to fall down with singed wings is a favorite illustration of Shelley's. It is a true picture of what he himself does. It is a common thing to dream of the fulfillment of desires which we know to be hopeless. Upon awaking how are we overwhelmed, first with a feeling of bewilderment, and then of utter desolation! So Shelley falls down, temporarily despairing, but with hands still outstretched to clasp the fleeting vision of ineffable beauty of which he has had soul-thrilling glimpses. As we shall see later, there is this difference between Shelley and the dreamer: Shelley believes the vision will return.

In what does Shelley find or try to find, the satisfaction of this yearning? In Pantheism. I say Pantheism for the lack of a better name. Yet it is of very little use to attempt to assign a poet to any of the philosophical schools. Christianity as he understood it, repelled him; materialism could not satisfy him, and so he made his God the Universe. His yearning was the yearning for the Universal. Nothing else could suffice. "In the language of reason," he said, "God and Universe are synonymous." In the "Zucca," a poem very seldom read, he expresses his Pantheistic creed.



"I loved—O no, I mean not one of ye,  
Or any earthly one, though ye are dear  
As human heart to human heart may be—  
I loved, I know not what—but this low sphere,  
And all that it contains, contains not thee,  
Thou, whom, seen nowhere, I feel everywhere.  
From heaven, and earth, and all that in them are,  
Veiled art thou like a — — — star,

"In winds, and trees, and streams, and all things common,  
In music, and the sweet unconscious tone  
Of animals, and voices which are human,  
Meant to express some feelings of their own;  
In the soft motions and rare smile of woman,  
In flowers and leaves, and in the grass fresh shown,  
Or dying in the autumn,—I the most  
Adore thee present, or lament thee lost."

The best commentary upon this point is Shelley's complete works. It is the only satisfactory one. I will quote, however, three verses from "Adonais" as one of the best illustrations of his Pantheism.

"Nor let us weep that our delight is fled  
Far from these carion knees that scream below;  
He wakes or sleeps with the enduring dead;  
Thou canst not soar where he is sitting now.  
Dust to the dust! but the pure spirit shall flow  
Back to the burning fountain whence it came,  
A portion of the Eternal, which must glow  
Through time and change, unquenchably the same,  
Whilst thy cold embers choke the sordid hearth of shame.

"He is made one with Nature: there is heard  
His voice in all her music, from the moan  
Of thunder, to the song of night's sweet bird;  
He is a presence to be felt and known,  
In darkness and in light, from herb and stone  
Spreading itself where'er that power may move  
Which has withdrawn his being to its own;  
Which wields the world with never wearied love,  
Sustains it from beneath, and kindles it above.

"He is a portion of the loveliness  
Which once he made more lovely: he doth bear  
His part, while the one Spirit's plastic stress  
Sweeps through the dull dense world, compelling there  
All new successions to the forms they wear,  
Torturing th' unwilling dross that checks its flight  
To its own likeness, as each mass may bear;  
And bursting in its beauty and its might  
From trees and beasts and men, into the Heavens' light."

Sad? perhaps so. Unsatisfactory? it may be. But Shelley is not the only one who has found it a blessed refuge.

So far Shelley was a Pantheist, but like Wordsworth, he was more than a Pantheist. Was he a Theist? I dare not say that he was any more than I dare say Wordsworth was. But as with Wordsworth, so with Shelley, this God, this Universal became a *Presence* (that was Wordsworth's word, he never says person), a presence with which he held communion, sweet communion, and which brooded over him. It is a beautiful conception and it underlies all his best work. In the essay "On Love," a prose piece, though it reads almost like poetry, he has the following: "There is eloquence in the tongueless wind, and a melody in the flowing brook and the nestling of the reeds beside them, which by their inconceivable relation to something within the soul, awaken the spirit to a dance of breathless rapture, and bring tears of mysterious tenderness to the eyes like the enthusiasm of

patriotic success or the voice of one beloved singing to you alone."

The same idea is more fully developed in the "Essay on Christianity": "Whoever is free from the contamination of luxury and license, may go forth to the fields and to the woods, inhaling joyous renovations from the breath of spring, or catching from the odors and sounds of autumn some diviner mood of sweetest sadness, which improves the softened heart. Whosoever is no deceiver or destroyer of his fellow-men—no liar, no flatterer, no murderer—may walk among his species, deriving, from the communion with all which they contain of beautiful or majestic, some intercourse with the Universal God. We live, and move, and think, but we are not the creators of our own origin and existence. We are not the arbiters of every motion of our own complicated nature; we are not the masters of our own imaginations and moods of mental being. There is a power by which we are surrounded, like the atmosphere in which some motionless lyre is suspended, which visits with its breath our silent chords at will. This power is God; and those who have seen God have, in the period of their purer and more perfect nature, been harmonized by their own will to so exquisite a consentaneity of power as to give forth divinest melody, when the breath of Universal Being sweeps over their frame." Surely that is not Atheism.

But with what does man's spirit commune? With a Universal Presence, it is true,—but what is this Presence? Wordsworth was satisfied with the Presence. Shelley names it. It is the Spirit of Love and Beauty.

"I vowed that I would dedicate my powers  
To thee and thine—have I not kept the vow?  
With beating heart and streaming eyes, even now  
I call the phantoms of a thousand hours  
Each from his voiceless grave: they have in visioned bowers  
Of studious zeal or love's delight  
Outwatched with me the covetous night;  
They know that never joy illumed my brow,  
Unlinked with hope that thou wouldst free  
This world from its dark slavery,  
That thou, O awful Loveliness,  
Wouldst give whate'er these words cannot express."

Love is the only deathless thing:

"For love and beauty and delight  
There is no death nor change; their  
Might exceeds our organs which endure  
No light, being themselves obscure."

Shelley's God then is not so very different from the God of the Bible after all, for is it not written that "God is Love?" Shelley's God is Love; his Universal is universal Love. Had this been his understanding of the God of the Bible, he would never have raised his voice in opposition. Sometimes he makes more prominent the idea of love, sometimes the idea of beauty. In "Rosalind and Helen," in the "Revolt of Islam," in "Queen Mab," in "Prometheus Unbound," it is as Universal Love that the spirit ap-



pears. While in the "Hymn to Intellectual Beauty," "Alastor," "Epipsychidion," "Adonais," and "The Sensitive Plant," he puts beauty in the foreground. But in them all it is the same spirit, for to Shelley's mind beauty and love are one from all eternity, and can no more exist apart than the inside and the outside of a curve.

The ever-fleeting vision in "Alastor," is the Spirit of Love and Beauty. "Epipsychidion" fell dead from the press. Not a copy of it was sold, because men could not grasp this conception of Shelley's. He knew it must be so; the dedication contains these lines:

"My Song I fear that thou wilt find but few  
Who fitly shall conceive thy reasoning;  
Of such hard matter dost thou entertain."

In a letter to John Gisborne, he says: "It is an idealized history of my life and feelings."

From the nature of the God he worships, Shelley's poetry is optimistic, not pessimistic. He is a most sanguine reformer. 'There's a good time coming,' is the burden of his message. This faith is something marvelous, more marvelous perhaps than the faith he derided as superstition. There is more of credulity in it at times. He is like the child running after the ever-receding colors of the rainbow, and he never gives up his childish faith that they can be grasped. Though he has attempted time and again to slake his thirst for beauty in mind-fabricated mirages, and has found only the hot sands of the desert when he touched his lips to them; yet he fully believes that sometime, somewhere, the living stream of perfect Love and Beauty will flow for the satisfying of the soul. The last two books of "Queen Mab," his first important poem, are given up to a glorification of the future. The last act of "Prometheus Unbound," the work of his maturer years, is one vast hallelujah over the triumphs of Love. This is not denying sadness in his poetry. His poems are sad but not pessimistic. They are sad because they are optimistic, sad because the glorious future of which he feels assured and for which he is hungering and thirsting, seems now so very far away, so very unattainable. The appetite is a present one; its satisfaction is far removed. *A temporary* despair is the natural result.

To summarize then: Shelley protested against Christianity as it was taught, and made his God the Universal; with this Universal, which he named the Spirit of Love and Beauty, he held sweet communion. He firmly believed in its complete ultimate triumph. It is not my purpose to defend his creed. I am satisfied if I have made it reasonably plain. As a system, either of philosophy or theology, it may be very defective for all that I know. Shelley was a poet and not a philosopher or a theologian. Those who are in sympathy with his beliefs will, of course, other things being

equal, get most enjoyment from his poetry. But this sympathy is by no means essential to a keen appreciation, not nearly so essential in the case of Shelley as in the case of Wordsworth. There were two Shelleys: the destructive Shelley, and the constructive Shelley. The destructive Shelley was the Shelley of protest; his collaborator was the Lord Byron of Cain and Manfred. It was the unreasoning, indiscriminate violence of the destructive Shelley that made him hated by the church, though few perhaps will care to deny that the chastisement which the church received at his hands was to a certain extent deserved. There was no destructive Wordsworth, and so Wordsworth was not theologically hated, although his poetry was filled with conceptions as much at variance with received theology as Shelley's. The constructive Shelley belonged to the transcendental brotherhood of Coleridge and Wordsworth, of Carlyle and Emerson. These transcendental seers have done a noble work. Some may regret that they did their work outside the pale of the church. They have nevertheless left a heritage to the church which it is only just beginning to appreciate. It has at last ceased to slander them. It will soon, we trust, accord them the praise they deserve.

#### MONISM AND RELIGION.

A REJOINDER. BY D. THEOPHILUS.

*With Editorial Remarks.\**

##### II.

The religion and monism in which E. P. Powell is interested, apparently differ essentially from the monism and religion of which the editor is exponent. Mr. Powell's religion is the old one in a new dress—the old religion with a new nomenclature. And his monism also turns out to be simply dualism in disguise.

His essay appears to derive its plausibility as an argument against the one it criticises, solely by virtue of the vagueness and confusion of meaning attached to the two chief terms employed, namely, religion and science.

In the use of both of these words, he has deemed fit to deviate widely from the best historic precedents in giving them such sense as suited his own purpose. Indeed, he does not seem to draw any distinction between the two. Religion is science, and science is religion. They are, apparently, with him synonymous terms. It is manifest that it is by virtue of this confusion or identification of terms that he is enabled to give the direct negative to my statement, viz., that science and religion have been antagonistic. He says, "no religion exists to-day or ever did exist which was not essential science." And in support of this we are referred to Egyptian, Indian, and Assyrian legends about the origin of the world and the creation of things. The writer not only identifies religion with science, but makes the latter synonymous with legends, myths, beliefs, opinions, or speculations of the uncritical ages.

The attachment of such a signification to the word science is unwarrantable, unless at least, he forewarned us of his intention to use it in that sense. That he did not do, and for good reason, doubtless, for had he done so, the inconsequential character of his reasoning would be rendered thereby conspicuous, which is simply

\* Lack of space prevents us from writing an editorial article in answer to this Rejoinder. The necessary replications will appear as parenthetical insertions marked by hanging indentations.



this: religion is not opposed to science, that is to say, to beliefs, legends, or traditions, for all ancient forms of religion were both based upon and interwoven with such legends or speculations about the origin of the world and its contents.

The cogency of such reasoning manifestly rests on the presumption that science, belief, or legend, as well as religion, are synonymous terms. If we are not prepared to grant this, then the argument will have neither force nor even meaning.

Assuming the identity of religion and science, he says, they could not be antagonistic: if, however, they did conflict, the conflict, we are told, was merely a conflict between science and science, between an older and a later science.

[Mr. Powell, we understand, identifies science and religion in so far as the religions of yore were based on the scientific notions of those times. The advancement of science has altered our religious beliefs also, and if new scientific discoveries force our philosophers to remodel our conception of the world, our religious attitudes will have to be remodeled again, for man's religion is based upon his conception of the world, or as Mr. Powell expresses it, religion is science plus reverence.—Ed.]

Suppose for the moment this be granted. What follows? Plainly this, that the point in dispute would reduce itself into a mere question of evidences and proofs. The antagonism would be of a similar character to that between the Ptolemaic and Copernican theories, and the number of persons capable of taking part or interest in, or pronouncing upon it, would be equally as exclusive and select. The point at issue would be a mere question of gathering, sifting and systematizing facts, and verifying hypotheses: a matter of concern to the learned and competent only—the trained and disciplined intellects. What then becomes of the idea of the universality of religion; the statement that it is an ultimate fact\* of human nature? And, besides, such a consequence is opposed to actual facts. Religion has been a matter of concern to the uncultivated, and not to the learned. And that is not all, but the ratio of zeal for and interest in religion have been in inverse proportion to culture; whereas in the case of science the order is reversed. The ratio of interest in the latter has been in direct proportion to the degree of culture. The more the culture the more the devotion to science. Thus, the conclusion logically deduced from the given premises—that religion was merely a science and in conflict with another science—is at variance with actual facts inductively obtained. All this however by the way.

[The inverse ratio between religion and culture of which Mr. Theophilus speaks, is true enough if religion means idolatry and superstition. If religion comes in conflict with science, it is obvious that it cannot be the religious sentiments; the religious notions only can collide with the notions of modern science. And Mr. Powell is right when declaring that the conflict between religion and science means "whether we are bound to believe the scientific conceptions of 2,000 and of 4,000 years ago or those of to-day," and certainly the difference between the old creeds of supernaturalistic religion and the monistic aspect of religion is like that between the Ptolemaic and Copernican theories.

[Religion in the sense defined by THE OPEN COURT is a fact (not an ultimate fact) of human nature just as much as language, reason, science, and art are. This fact cannot be refuted by producing people who are relatively unscientific, unreasonable, or irreligious; for every man is (not absolutely, but relatively) moral, reasonable, scientific, religious, and ar-

tistic. All these properties are necessary consequents of the fact, that man is a speaking being.—Ed.]

The more serious portion of this paper must be reserved for the examination of the nature, sphere, and limits of religion and science respectively.

The word science, as used in my article, is limited in meaning to its usual accepted sense of exact or systematic knowledge: knowledge obtained through the processes of observation, experiment, reasoning, and verification; as opposed to opinion, tradition, fancy, or information, accepted on authority—unsifted or uncritical knowledge. The only extension of meaning that is allowed it, beyond its limited sense, is in making it embrace the word philosophy as well as science in the restricted sense.

From this limitation, all so-called knowledge involved in tradition, legends, or opinion, all uncritical knowledge is excluded; just the very kind of knowledge which my opponent, contrary to universal usage and the plain import of the language of the essay, makes it include.

The result is that a large portion of his article, considered as an argument against positions advanced in my own, is irrelevant, and therefore inconclusive.

[Mr. Theophilus apparently overlooks the fact that much so-called scientific knowledge of to-day is fancy, tradition, and unsifted or uncritical knowledge, accepted on authority. Science is rather the search for truth than truth itself. It seems as if Mr. Theophilus believes that the science of to-day is in possession of absolute truth, while religion in his mind appears to be the incorporation of unmixed superstition.

[If religion must needs be superstition, how strange would it be that most scientists and philosophers, as Kepler, Copernicus, Kant, have been religious. Most of them (as Kepler and Kant) have been religious in the broader sense of the word. They looked upon the results of their labor not with a disinterested indifference, but with awe, reverence, and admiration for the grandeur of the cosmical laws they had investigated. Other scientists have been religious in the narrowest sense of the word. Newton, for instance, was a most narrow-minded Wesleyan, and not only believed many absurdities, but also defended them publicly in books; imagining that his renown as a theologian would eclipse that of a mathematician.

[Prof. Mach's article in Nos. 46 and 48 of THE OPEN COURT, shows that our most scientific ideas of to-day are evolved from the crudest notions of past ages. They are the very same ideas (or if you please their descendants), only modified by transformation and adaptation.

[In connection with our replicatory remarks, we advise the reader to compare the review of Prof. A. Weber's pamphlet, "Die Religion als Wille zum ewigen Leben," on page 1195 of this number.—Ed.]

The main contention between my opponent and myself turns upon the use of the two words religion and science. Can they be employed interchangeably? Is religion science, or science religion? To these questions I answer in the negative. I hold that they represent perfectly distinct ideas, and are differentiated, the one from the other, by a sharp contrast.

Let us hold them up over against each other and mark a few of their characteristic features. A scientific knowledge is a cognitive act or process pure and simple, and nothing else. It is seeing things, or parts of things, in their relations; the things themselves as things, or as affecting the knower, are, for the time being, ignored. Science is absolutely disinterested: it has nothing whatever to do with one's sympathies or antipathies. Its end is gained when you have determined the relations of an object to its surroundings—when you have known the conditions or laws of its existence.

\*"Ultimate fact" is an expression which should be avoided. Facts are either verifiable facts or they are false. A discrimination between primitive, ultimate, or any other facts is just as untenable as between ultimate, final, and other causes.—Ed.



['Science is absolutely disinterested,' means, if it means anything, that science must be impartial and unbiased in the investigation of truth. But it does not mean that it does not affect the feelings of the scientist, or that it destroys his sympathies and antipathies. On the contrary, it can not be doubted that his emotional faculties are educated and refined by his labor and the results of his labor. The investigation of truth does not only illumine the head, it also purifies the heart.—Ed.]

Religion, too, as I pointed out in the former essay, rests upon an intellectual basis, it recognizes the existence of an agent or a personality, with whom mankind can enter into relationship. But the knowledge of the simple objectivity of this being and its external relations, is not what is sought for, as in the case in science. It is an object of concern to the believer or knower, solely by virtue of its supposed power to affect the feelings. Practically, in religion the cognitive element is scarcely present, except in the vaguest form; the emotional having absorbed all. Its origin in cognition might be traced somewhat thus: the unaccountability of the various processes of nature with which man had to contend, probably suggested to him, while in search for a cause, the existence of an agent or a personality like himself. In so far as our supposed primitive man was seeking for a cause of phenomena, he was simply a sort of crude man of science. He was merely exercising an intellectual act: he was not yet religious. For he had not yet discovered a religious object. The mere search after an explanation of things could not constitute such object.

But the moment he gave up the quest after knowledge and cut the Gordian knot of research, by substituting an agent or a personality with a power and a will, an agent made after his own likeness, and placed it, thus made, above, under, or in the essence of things, as an object for the feelings to play upon; he has clearly overstepped the boundary of cognition, and is fairly within the domain of religion.

The object presented by religion to the cognitive faculty is of such a character that its entire interest is centred, not in itself or its objective relations, but solely in its supposed power or virtue to put forth energy either to the advantage or disadvantage of the believer or knower. And herein, I repeat, lies its characteristic difference from science. It is simply an object created by the imagination for the feelings to act upon, and not for the intellect to know.

In this respect religion has exact analogies in such speculations or practices as alchemy, astrology, magic, and witchcraft. The object for mental apprehension in each of the latter was of value and interest to the devotee, not as a mere objective existence, obeying certain laws and behaving in certain ways, but by reason of the occult power or virtue it was supposed to possess, to affect the cognizing subject.

The metals were studied not with a view of learning their intrinsic character, laws, or relations, but because of their presumed power to convert other metals into gold.

The stars were contemplated, not to gain knowledge of their laws, but simply on account of their supposed influence over human destiny. And a knowledge of magic and witchcraft was valued for its command over evil spirits. The same holds good in the case of the so-called spiritualism of the present day.

And precisely of a like character is the object of religious knowledge. It has been of interest to mankind, solely by virtue of its supposed power to control the world and order human destiny. Deprive it of this characterization, and then religion as a fact ceases to exist.

When alchemy and astrology were discredited as gold-producing and fortune-telling processes, both words and ideas lost their hold on mankind. As soon as metals and stars became disinterested ob-

jects of cognition, and were studied on their own account; then alchemy lost itself in chemistry, and astrology became astronomy.

[Mr. Theophilus misrepresents alchemy as well as chemistry, astrology as well as astronomy. A true scientist, it is true, studies nature solely for the purpose of investigating the truth, but at the same time, it is well known, that knowledge is power. And the end of all science is to make man free and powerful. There have been many alchemists and astrologers who were, subjectively considered, as true scientists as they could be.

[Supernaturalism and dualism, but not religion, can be classed with alchemy and astrology. Strauss and Feuerbach, whose authority Mr. Theophilus erroneously claims to be in his favor, employ the word religion in a quite different sense. Strauss says, ('Der alte und der neue Glaube,' p. 182): "Limitation or transformation is not annihilation. Religion is not to us what it has been to our fathers; but it cannot be concluded from this fact that it is extinct in us. At any rate the essence of all religion remains, which is 'the feeling of absolute dependence.'\* Whether we say God or Universe, we feel absolutely dependent upon the one as well as the other."

[Feuerbach has succeeded in deepening Schleiermacher's definition that religion is the feeling of absolute dependence. He objects to the idea that religion is a mere passive feeling, and lays all stress upon man's activity raised by his feeling of dependence. Strauss says of him (p. 137), "Feuerbach justly declares that the origin, indeed the main essence of religion is man's want (Wunsch). If man did not want anything he would have no gods. What man wants to be, but what he is not becomes his god. Religion, therefore, is not only the dependence in which he finds himself, but religion originates from his want to react against, to deliver himself from, this dependence. Mere dependence would depress and annihilate him. He must protect himself from it, he must try to gain breath and freedom of action."—Ed.]

Precisely the same result must happen in the case of religion. Take from the object its personality and its capacity to create and govern, and reduce it to an unknown cause or causes of phenomena, and from that moment religion will be to you a dead letter. The entire domain of possible cognition is now occupied by science, and religion will have no place within human consciousness, metaphorically speaking, to rest the sole of her foot.

[This statement is correct from the agnostic standpoint, if 'religious' means 'superstitious' and nothing but that.

["Unknown cause or causes of phenomena" is an expression often used by agnostic philosophers, but it has no place in positive science. If an unknowable something or unknowable somethings, either behind or hidden within nature, must be supposed to cause natural phenomena, (in a similar way as Zeus has been supposed to cause thunder and lightning,) we may just as well look upon these "unknown causes of phenomena," as being personal agents, for the one view is just as much dualism as the other. Monism knows nothing of such a transcendent or mysterious causality.—Ed.]

(To be concluded.)

#### A PARABLE.

LOUIS BELROSE, JR.

A certain farm had long been deemed the best

Of all the country round; but war, neglect,

And folly joining, fields that once were decked

With plenty turned to swamp where vile weeds pressed.

\* This is Schleiermacher's definition.



And they were many brothers who possessed;

With minds like many ways that intersect;

All one in will to mend the fortune wrecked,  
But differing each from all in all the rest.

Some simply wished to root away the weeds;

Some counselled prayer, and others counselled spoil;

Some sought the prophets of the new-born creeds;

And one there was for management and toil,

Till choice of varied crops and different seeds,

With time and culture, should renew the soil.

#### BOOK REVIEWS.

DIE RELIGION ALS WILLE ZUM EWIGEN LEBEN. Prof. Dr. Alfred Weber. Strassburg: 1888. J. H. Ed. Heitz (Heitz & Mündel.)

Alfred Weber, Professor of Philosophy at the University of Strassburg, characterizes Religion in its most general and essential features as *Will*. It is the will to live on and to live eternally. Man has religion because he dies; he wants to know whether and how he can live after death; he wants to conquer death and this want produces religion. Weber defines "religion in its subjective sense as the awe which man has for powers (be they imaginary or real) of which he believes that they have a decided influence upon his fate \* \* \* and in its objective sense it is the whole growth of conceptions, ceremonies, and institutions which have originated from this reverent awe." Accordingly religion is 1, *will*, viz., the will to live; 2, *conception* or *idea*, viz., a conception of powers upon which our existence, and our fate, and future welfare depends; and 3, *certain actions or conduct* by which man hopes to gain the favor of those powers so as to gain the end of his will.

The medicine man of the savage, the necromancer, the magician, the priest, the theologian and law-giver, the philosopher, the naturalist and moral teacher, in so far as they are subjectively sincere, are one and the same person. Even to-day many congregations may be found in which the clergyman is *eo ipso* the man of learning and the physician, just as it has been in ancient Egypt, India, and Gaul. The methods of these men from the medicine man to the philosopher, necessarily change with a change of their conceptions of the powers upon which existence depends, but their ultimate end is the same.

Self preservation according to the main source of religion; of the lowest superstitions as well as of the highest form of philosophical religions. Religion, philosophy, and morals are with reference to their origin, identical; they are branches of one and the same tree. Religion is the will to live; philosophy, the will to know. But what else is the desire to know than the desire to govern the course of things, instead of being governed by them? Knowledge is power, and science, or the search for knowledge, is fundamentally nothing but the will to live. Moral conduct aspires to the same end. All morals, therefore, are "religious practice," just as philosophy is "religious theory." Even pure morals is a religion; "morals without any religious basis is self-delusion or humbug."

Professor Weber then shortly reviews the different stages of Religion. Man's religion changes as his conception of the power, upon which his existence depends is changed; but the main spring of religion, "the will to live," remains the same, unless we say that it is changed by this change of religious conceptions which, if purified by higher ideas, by science, and by a more comprehensive knowledge, is elevated and ennobled so that the mere 'will to live' becomes the will to live well. "Wille zum Leben" becomes "Wille zum Guten."

Professor Weber's sketch is written from a strictly impartial standpoint; an orthodox Christian can read it as well as a free-thinker, without taking offense. Professor Weber refrained from drawing the last consequences in reference to the burning religious questions of the day. We should have been glad to hear his opin-

ion on these subjects. It would be valuable as that of an impassionate scholar and enquirer into the profoundest problems of the human mind. We are confident that the conclusions drawn from Prof. Weber's proposition will prove him to be in harmony with the aim and work of THE OPEN COURT. We call special attention to the fact that Prof. Weber does not mention the belief in the Unknowable, or in anything supernatural among the essential features of religion. The words supernatural, and unknowable do not even occur in his pamphlet; and yet the subject is treated exhaustively, although in a concise form, and covers the whole ground of all that can be considered as general features of religion. P. C.

#### PARABLES.

TRANSLATED FROM THE ARABIAN BY HENRY BYRON.

#### THE BOOK OF JOB.

My father who, besides Arabian, also knew Persian and Hebrew, had a favorite book, the Hebrew book of Job. The mysterious depth, the overwhelming grandeur, the poetical sublimity of this marvelous book made an extraordinary impression on the thoughtful and, at the same time, deeply-feeling man.

He had been for some time past particularly devoting himself to the study of this book, when I (then seven years old) was seized by a sickness from which I recovered so slowly, that I was kept from going to school for the length of a half a year.

Now, whether it was that father was so full of his subject, that he could not refrain from imparting some of it even to me, the young boy; or whether it was that, at the beginning, he only wanted to make me acquainted with the two first chapters of the book, which are well adapted to a child's comprehension— suffice it to say, that he began explaining his favorite book to me and continued to do so from day to day until I had entirely recovered and could again attend school, by which time we had arrived at the close of the seventeenth chapter. These seventeen chapters I had learned so attentively and joyfully, that I could recite them by heart. Had not father given himself all possible pains to make the sublime contents accessible to my childish understanding? Had not his face beamed with joy while instructing me? How could I be otherwise than diligent? How would it have been possible for me not to catch a spark of his glowing enthusiasm?

At that period (on a beautiful sunny day, but which, for father, proved a very dark day indeed), father lost a dear friend. He took me with him to the funeral, and I can still see the picture the cemetery presented on that day: the numberless gray tombstones surrounding us on all sides; the crowded multitude as pale, still, and immovable as the tombstones themselves, but especially the Iman who, looking as if transfigured, and pointing to the new grave on which the sunbeams fell, exclaimed enthusiastically: "Look, the sun shines on the grave; the graves of the earth are not dark, are not without hope; for heavenly light and heavenly comfort reach even down to them."

On our way home (father walking slowly and silently and leading me, as was his custom, by the hand) the Iman joined us. For a long time neither of them spoke. The Iman did not try to console his friend, well knowing that consolation may soothe the heart when already healing, but not while yet bleeding from fresh wounds;—and father was entirely absorbed in his grief. At last father said to me: "Come, my child, into our midst and recite to us the fourteenth chapter of the book of Job. Speak in a loud and clear voice! I will hear every word of it." I began:

"Man born of woman, is of few days and full of trouble. He cometh forth like a flower and is cut down; he fleeth as a shadow and continueth not. And dost thou, (God), open thine eyes upon such a one, and bringest me into judgment with thee," and so on to the end of the chapter.

Such words at such an hour, coming as they did from the



mouth of a child, must have had a powerful effect, for, looking up to the Iman, I saw that his eyes were wet with tears. I dared not then look up to father until, an hour later, we entered our house.

#### THE KISS.

One day I sat at school, and my little three year old brother who was sometimes allowed to accompany me thither, sat beside me with an expression in his large, earnest eyes, as if fully understanding everything that was being taught, when suddenly one of our servants, with tears in his eyes, entered and called us home. Arriving there, we were taken silently to the large room, and, there on the floor, lay the dead body of grandfather all covered with a pall, except his face. Many people were standing about, but there reigned such stillness, as if there was no one by: Death is silent and solemn, and men become so, too, in his august presence.

One of those assembled, a venerable old man, took my little brother in his arms and, bending down low with him, made him kiss grandfather. Then, in a voice which is still re-echoing in my heart, the old man said:

"As by the kiss, which the child gave to the deceased, life's beginning and life's end met and touched, as it were; so meet and join the end of passing life and the beginning of life eternal. There is no death: he who has ceased to live, has been born to life everlasting."

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

#### CHAPTER XXIII—Continued.

Laura went at once to the Professor, whom she found in his study, and asked in a merry voice if he could not aid her in playing a joke upon her kind-hearted, yet unmanageable, neighbor. "He collects all sorts of antiquities," she said, "and I should like to get him something rare that he would like. But nobody must know that I have anything to do with it, himself least of all."

The Professor promised to think of something.

Some time afterwards he placed in Laura's hands a small torn volume, that looked reduced to a pitiful state. "They are single copies of old popular songs," said he, "that at some time or other have been bound together. I hit upon them by a lucky accident. The little book is valuable; to the amateur its worth is beyond proportion greater than the price. Do not be disturbed at its bad appearance. Fritz will take out the separate songs, and arrange them in order in his collection. I am convinced you could not make him a present that would please him better."

"He shall have it," said Laura, contented, "but he shall suffer for it nevertheless."

It was a fine collection: there were some very rare pieces among them, an entirely unknown edition of the ballad of the unfortunate Knight Tanhäuser, the ballad of the Robber Toss Bowl, and a great many other charming selections. Laura carried the book upstairs, and carefully cut the thread of the bound sheets, which held them loosely together. She then sat down to her writing-table, and commenced an anonymous correspondence, which was made necessary by her father's tyranny, writing the following in a

disguised hand: "Dear Doctor, an unknown person sends you this song for your collection; he has thirty more like these, which are intended for you, but only on certain conditions. First, you are to preserve towards every one, whoever it may be, inviolate secrecy in the matter. Secondly, you are to send for every poem another written by yourself, on any subject, addressed to O. W., at the Post-office. Thirdly, if you are willing to agree to this compact, walk past No. 10 Park street, with a flower in your button-hole, about three o'clock in the afternoon on one of the next three days. The sender will be exceedingly gratified if you will enter into this pleasantry. Truly Yours N. N." The song of Robber Toss Bowl was enclosed with this letter.

It was five minutes after nine by the Doctor's watch, which was confirmed by later investigations, when this letter was brought into his room; the barometer was rising; light, feathery clouds floated across the sky, and the moon's pale crescent shone forth from among them. The Doctor opened the letter, the green-tinted paper of which contrasted with the old printed sheet, yellow with age, that accompanied it. He unfolded the yellow sheet hastily, and read:

"Storbecker und Godecke Michael,  
De rowten alle heede."

"Godecke Michael and Toss Bowl, Knight,  
They fought all day and they fought all night."

There was no doubt it was the original low German text of the famous ballad, which had hitherto been lost to the world, that lay bodily before him. He was as pleased as a child with a Christmas-box. Then he read the letter, and when he came to the end, he read it again. He laughed. It was clearly all a roguish jest. But from whom? His thoughts turned first to Laura, but she had only the evening before treated him with cold contempt. It was not to be thought of, and such playful mischief was very unlike the Professor. What did the house No. 10 mean? The young actress who lived there was said to be a very charming and enterprising young lady. Was it possible she could have any knowledge of folk-songs, and the Doctor could not help thinking, a tender feeling for himself? The good Fritz chanced to step before the mirror for a moment, and he at once uttered an inward protest against the possibility of such an idea, and, laughing, he went back to his writing-table and to his popular song. He could not enter into the pleasantry, that was clear, but it was a pity. He laid the Robber Toss Bowl aside, and returned to his work. After a time, however, he took it up again. This valuable contribution had been sent to him, at all events, without any humiliating condition; perhaps he might be allowed to keep it. He opened a portfolio of old folk-songs, and placed it in its order as if it had been his own. Having laid the treasure in its proper place,

\* Translation copyrighted.



he restored the portfolio to the bookshelf, and thought, it is a matter of indifference where the sheet lies.

In this way the Doctor argued with himself till after dinner. Shortly before three o'clock he came to a decision. If it was only the joke of an intimate acquaintance, he would not spoil it; and if there had been some other motive, it must soon come to light. Meanwhile, he might keep the document, but he would not treat it as his own possession till the right of the sender and his object was clear. He must, in the first place, communicate this view of the case to his unknown friend. After he had made the necessary compromise between his conscience and his love of collecting, he fetched a flower out of his father's conservatory, placed it in his button-hole, and walked out into the street. He looked suspiciously at the windows of the hostile house, but Laura was not to be seen, for she had hid behind the curtains, and snapped her fingers at the success of her jest when she saw the flower in his buttonhole. The Doctor was embarrassed when he came in front of the house appointed. The situation was humiliating, and he repented of his covetousness. He looked at the window of the lower story, and behold! the young actress was standing close to it. He looked at her intelligent countenance and attractive features, took off his hat courteously, and was weak enough to blush; the young lady returned the civility tendered by the well-known son of the neighboring house. The Doctor continued his walk some distance beyond; there appeared to him something strange in this adventure. The presence and greeting of the actress at the window certainly did not appear to be accidental. He could not get rid of his perplexity; only one thing was quite clear to him, he was for the present in possession of the ballad of the Robber Toss Bowl.

As his qualms of conscience did not cease, he debated with himself for two days whether he should enter upon any further interchange of letters; on the third he silenced his remaining scruples. Thirty ballads, very old editions—the temptation was overpowering! He looked up his own attempts in rhyme,—effusions of his own lyrical period,—examined and cast them aside. At last he found an innocent romance which in no manner exposed him; he copied it, and accompanied it by a few lines in which he made it a condition that he should consider himself only the guardian of the songs.

Some days afterwards he received a second packet; it was a priceless monastery ditty, in which the virtues of roast Martinmas goose were celebrated. It was accompanied by a note which contained the encouraging words: "Not bad; keep on."

Again Laura's figure rose before his eyes, and he laughed right heartily at the Martinmas goose. This

also was an old edition of which there was no record. This time he selected an ode to Spring from his poems and addressed it, as directed, to O. W.

The Professor was astonished that the Doctor kept silence about the book of ballads, and expressed this to Ilse, who was partly in the secret.

"He is bound not to speak," she said; "she treats him badly. But as it is he, there is no danger in the joke for the bold girl."

But Laura was happy in her game of chess with masked moves. She put the Doctor's poem carefully into her private album, and she thought that the Hahn poetry was not so bad after all; nay, it was admirable. But even more gratifying to her sportiveness than the correspondence, was the thought that the Doctor was to be forced into a little affair of sentiment with the actress. When she met him again at Ilse's, and one of those present was extolling the talent of the young lady, she spoke without embarrassment, and without turning to the Doctor, of the curious whims of the actress, that once, when an admirer, whom she did not like, had proposed to serenade her, she had placed her little dog at the window with a night-cap on, and that she had a decided preference for the company of strolling apprentices, and could converse with them in the most masterly way in the dialect of her province.

The unsuspecting Doctor began to reflect. Was it then really the actress who, without his knowing it, was in correspondence with him?

This gave Fritz a certain tacit respect for the lady.

Once when Laura was sitting with her mother at the play watching the actress, she perceived Fritz Hahn in the box opposite. She observed that he was looking fixedly through his opera-glass at the stage, and sometimes broke out in loud applause. She had evidently succeeded in putting him upon the wrong track.

Meanwhile he discovered that the unknown correspondent knew more than how to write addresses. Laura had looked through the songs and studied the text of the old poem of the Knight Tanhäuser, who had lingered with Venus in the mountain, and she sent the ballad with the following lines:—

"While reading through this song I was overcome with emotion and horror at the meaning of the old poetry. What, in the opinion of the poet, became of the soul of poor Tanhäuser? He had broken away from Venus, and had returned penitent to the Christian faith; and when the stern Pope said to him, 'It is as little possible for you to be saved as for the staff that I hold in my hand to turn green,' he returned to Venus and her mountain in proud despair. But afterwards the staff in the hands of the Pope did turn green, and it was in vain that he sent his messengers



to fetch the knight back. What was the singer's view of Tanhäuser's return to evil? Would the 'Eternal love and mercy' still forgive the poor man, although he had for the second time surrendered himself up to the temptress? Was the old poet so liberal-minded that he considered the return to the heathen woman as pardonable? Or is Tanhäuser now, in his eyes, eternally lost? and was the green staff only to show that the Pope was to bear the blame? I should be glad to hear your explanation of this. I think the poem very beautiful and touching, and, when one thoroughly enters into its spirit, there is powerful poetry in the simple words. But I feel much disturbed about the fate of Tanhäuser. Your N. N."

The Doctor answered immediately:

"It is sometimes difficult, from the deep feeling and terse expressions of olden poetry, to understand the fundamental idea of the poet; and most difficult of all in a poem which has been handed down for centuries by popular tradition, and in which changes in the words and meaning must certainly have taken place. The first idea of the song, that mortals dwell in the mountains with the old heathen gods rests on a notion which originated in ancient times. The idea that the God of Christians is more merciful than his representative on earth has been rooted in Germany since the time of the Hohenstaufens. One may refer the origin of the poem to that period. It probably attained the form in which it is now handed down to us, about the middle of the fifteenth century, when the opposition to the hierarchy in Germany was general, both among high and low. The grand idea of this opposition was that the priests cannot forgive sins, and that only repentance, atonement, and elevation of the heart to God can avail. The copy which you have so kindly sent me, is of the early period of Luther, but we know that the song is older, and we possess various texts, in some of which it is more prominently set forth that Tanhäuser after his second fall might still trust in the divine mercy. But undoubtedly in the text you have sent me the singer considers poor Tanhäuser as lost if he did not liberate himself from the power of Venus, but that he might be saved if he did. According to popular tradition he remained with her. The great and elevating thought that man may shake off the trammels of past sin may be discovered in this poem, the poetical value of which I place as high as you do."

When Laura received this answer,—Gabriel was again her confidential messenger,—she jumped up with joy from her writing-table. She had with Ilse grieved over poor Tanhäuser, and given her friend a copy of the poem; now she ran down to her with the Doctor's letter, proud that, by means of a childish joke, at which Ilse had shaken her head, she had en-

tered into a learned discussion. From this day the secret correspondence attained an importance for both Laura and Fritz which they had little thought of in the beginning; for Laura now ventured, when she could not satisfy herself on any subject, or took a secret interest in anything, to impart to her neighbor thoughts which hitherto had been confined to her writing-table, and the Doctor discovered with astonishment and pleasure a female mind of strong and original cast, which sought to obtain clear views from him, and unfolded itself to him with unusual confidence. These feelings might be discovered in his poems, which were no longer taken out of the portfolio, but assumed a more personal character. Laura's eyes moistened as she read the pages in which he expressed in verse his anxiety and impatience to become acquainted with his unknown correspondent. The feeling evinced in his lines was so pure, and one saw in them the good and refined character of the man so clearly that one could not fail to place full confidence in him. The old popular songs, in the first instance the main object, became gradually only the accompaniments of the secret correspondence, and the wings of Laura's enthusiastic soul soared over golden clouds, whilst Mr. Hummel growled below and Mr. Hahn suspiciously awaited fresh attacks from the enemy.

But this poetical relation with the neighbor's son, which had been established by Laura's enterprising spirit, was exposed to the same danger that threatens all poetic moods—of being at any moment destroyed by rude reality. The Doctor was never to know that she was his correspondent,—the daughter of the enemy whom he daily met, the childish girl who quarreled with him in Ilse's room about bread and butter and almonds. When they met, he was always as before the Doctor with the spectacles, and she the little snappish Hummel, who had more of her father's ill manners than Gabriel would admit. The sulking and teasing between them went on every day as formerly. Nevertheless, it was inevitable that a warm feeling should sometimes beam in Laura's eyes, and that the friendly disposition with which she really regarded the Doctor should sometimes be betrayed in a passing word. Fritz, therefore, labored under an uncertainty over which he secretly laughed, but which, nevertheless, tormented him. When he received the well-disguised handwriting he always saw Laura before him; but when he met his neighbor at his friend's she succeeded, by mocking remarks and shy reserve, in perplexing him again. Necessity compelled her to this coquetry, but it acted upon him each time like a cold blast; and then it struck him, it can not be Laura,—is it the actress?

(To be continued.)



W. D. GUNNING.

Mr. W. D. Gunning's essay *Katzenjammer*, in No. I, is a sprightly, half humorous, half serious lay sermon, sending shafts of light into the dark recesses of the mind. Katzenjammer is a German word, which means cat-sickness, and denotes a malady of body and mind which results from night-life. The owl, the night-hawk, the whip-poor-will and all the felines are night-prowlers. Men also have gone astray with the cats and become nocturnal; even Socrates, with all his virtues was somewhat addicted to Katzenjammer. Katzenjammer was a large factor in the decline of Athens and the chief factor in the fall of Rome. What a Katzenjammer's-band was that of Cataline! What Katzenjammer was that of Nero fiddling in the light of burning Rome! Struggle for life drove one member of a certain family higher into the air, and another into the ground. The sun-seeker gained in eye and brain, the earth-burrower lost its eyes and retained only brain enough to guide it through the ground. Such are the fates of the mole and the bat. Igrasil the tree of life has been pushing its human fruit inward to the shade. We want a peripheral humanity lit by beams of science and sweetened and mellowed by active rays of the sun of righteousness.

C. K. WHIPPLE.

"Progressive Orthodoxy," by C. K. Whipple, in No. 25, is a very keen and rather sarcastic satire on "The American Board of Commissioners for Foreign Missions." The said "Board" declined to comply with the request of their missionaries to make a few changes in the plan of saving the savages. These innocents, it was experienced, object in an absurd benevolence to the plan of eternal damnation, so as to be lost for Christianity. Mr. Whipple, it seems, did not consider that the Board could not have acted otherwise, for it would have been an outright confession that the savages had converted the missionaries, a most illogical and very improper thing to do.

GUSTAV FREYTAG.

Commencing with No. 22 is a philosophic novel by Gustav Freytag. In this refined and interesting story the reader becomes acquainted with some strongly marked personalities, and hears from them some rich and rare philosophy. "What is the object of philosophy?" says Frau Rollmans to the Professor.

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GEN. M. N. TRUMBULL.

In No. 25 Gen. Trumbull has an article on "The Value of Doubt in the Study of History." He shows the tendency of historic writing toward exaggeration and falsehood; and he advises teachers to strengthen the minds of pupils by the exercise of doubt. Much of the history of the late war as written by our famous generals is as fabulous as the legend of Romulus and Remus. It is written by men interested in their own story, and therefore it comes under the suspicion cast upon it by the ordinary rules of evidence. "This war history," says Gen. Trumbull, "is woven out of camp-fire yarns." "Like the feet of Chinese children," he says, "our minds were crippled in infancy, and many of them have been lame ever since. They are not as useful to us as they would have been if strengthened in infancy by the exercise of doubt."

GEORG VON GIZYCKI.

In Nos. 25 and 26 is presented a very scientific article entitled "Determinism versus Indeterminism," by Georg Von Gizycki, Professor of Philosophy at the University of Berlin. This is in answer to Professor William James of Harvard University, who, in a lecture published in the *Unitarian Review*, had maintained the doctrine of *indeterminism*. The whole inquiry relates to the Freedom of the Will, and the terms are thus explained:

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(First published in THE OPEN COURT on June, July, and August, 1887.)

BY F. MAX MÜLLER.

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2. The Identity of Language and Thought; and
3. The Simplicity of Thought.

With an Appendix which contains a Correspondence on "Thought without Words," between F. Max Müller and Francis Galton, the "Duke of Argyll, George J. Romances and Others.

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FORMER CONTRIBUTIONS TO "THE OPEN COURT."

PROF. E. D. COPE.

In Number 23 Professor E. D. Cope treats of "Evolution and Idealism," and finds in the evidence of evolution the refutation of the doctrine of idealism. He concedes that much of what we consider the objective world is unreal and has no existence, except, as we perceive it, like the snakes, for instance, to the victim of *delirium tremens*; and he agrees that "the properties of matter" owe much of their character, and even their existence, to our senses, which give matter all its qualities, or, at least, modify and change them according to the number of our senses and their ability to perceive. Yet, for all that, he says: "If a given supposed object be purely a mental state on the part of the subject, a rational cause for the production of that state is wanting."

With great self-confidence, Professor Cope says: "Evolution gives the *coup de grace* to idealism of the consistent type. In the gradual unfolding of organic life it sees the two universal facts, subject and object. It sees them interact and influence each other," and further on he says: "It is equally competent for the materialist to deny the existence of mind as for the

idealist to deny the existence of matter. The materialist beholding the imperfection of the senses may pronounce them to be, one by one, incompetent witnesses, and declare them to be illusions. But the fact is, both exist, object and subject, matter and mind."

MORRISON I. SWIFT.

In No. 23 **Morrison I. Swift** makes a vigorous appeal to the churches that they become actively interested in what is generally known as "The Social Problem," and that they take the lead in Christianizing the people after the manner practiced by Jesus in Judea and by his disciples, as related in the New Testament. Mr. Swift's language is clear, eloquent, pervaded by an ideal humanitarianism, and is not only respectful to the clergy but even reverent. He thinks the opportunities of the present and the future are in the hands of the churches, and that the clergy may lead the van of social progress instead of trailing along behind the baggage wagons, as they have so long been contented to do. "In this country," he says, "where the church has the allegiance of so large a portion of the people, where it represents a large proportion of the specially organized moral forces of the land, where finally its material resources are almost unlimited and the money power of the country is its friend and supporter, it would be possible for the church to bring about the reform that is needed, with little difficulty, if it desired to do so." Here Mr. Swift is confronted with the important objection that should the church take the lead in the social revolution or even in social reformation so far as "to establish such fair distribution of the products of human industry that superabundance and luxury will not exist," the "money power of the country" would cease to be its "friend and supporter" and the clergy might cease to be a priesthood. He presents the difficulty thus: "It is said by some that the pulpit will not go much beyond those who maintain it. This is to acknowledge that the opinions of the clergy are to-day bought and paid for, just as lawyers are hired and legislators sent to uphold the ideas of their constituency." Notwithstanding this difficulty, Mr. Swift sees "a slumbering lion in the Christian ministry, which will, ere long, awaken and put forth its formidable powers for the poor and the oppressed."

Two other essays by Morrison I. Swift, are contained in Nos. 32 and 44. In the one he speaks of *The Scholar as a Reformer*, and in the other of *The Masses as Reformers*. The scholar has imbibed something of the historic spirit; he perceives, moreover, that the change in human institutions must ever be along the line of the moral and the ideal. Life can not be conceived in its full import, until the individual comprehends himself as the bearer of the rare essence and as containing, in no merely figurative way, the temporal hereafter. It is the mission of the scholar to reveal the larger and encompassing world of his soul, not of the bookish professional scholar but of him who has sought a profound comprehension of the meaning of life in its complexity and breadth. He must guide the masses, he must clear away the mystifying creeds and establish the truth that all men are born to live moral and beautiful and expanding lives in whatever sphere they may labor.

Mr. Swift considers the masses as the raw material for reform. There are rich people who think that general betterment means loss to them. But to dread reform is to misunderstand. Whatever is imperfect in society is injurious to all classes. A reform at one point reaches every point. The essayist sets great hopes on the masses—indeed, hopes too great, which may prove illusions. "Their minds," he concludes, "are more fluid and therefore they are more capable of growth into a surviving harmony with the conditions of life than those whose adaptations were formed earlier and in less enlightened times. . . . They are to become an infinitely more important factor in the life of the race than ever before." . . .



# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 55. (VOL. II.—29.)

CHICAGO, SEPTEMBER 13, 1888.

Two Dollars per Year.  
Single Copies, 10 cts.

## THE PSYCHIC LIFE OF MICRO-ORGANISMS.\*

BY A. BINET.

*Translated from the "Revue Philosophique" by HENRI.*

PART IV.

II.

### NUTRITION.

After studying the organs, let us pass to a study of their functions.

It is not our intention to devote special chapters to irritability, instinct, memory, reasoning, and the powers of volition in Micro-organisms. This would lead to diffuseness of treatment. Our method will be quite different. We shall describe as a whole all the different manifestations of psychical activity attendant upon the actions of Micro-organisms in the exercise of the important functions of their existence. The present chapter will be devoted to psychical phenomena connected with the act of nutrition.

All living matter possesses the power of continually increasing its mass by the inward reception of materials, and of simultaneously decreasing the same through the combustion of its substance with the oxygen of the atmosphere. The first of these processes is called nutrition, and the second, respiration.

We shall first examine the psychical phenomena which precede and determine the act of respiration. These phenomena are often very simple and of little significance. If the Micro-organism lives in the water, which is most frequently the case, the oxygen contained in solution therein passes directly through the cellular cuticle by dialysis and comes in contact with the body of the protoplasm; in which case the process of respiration is solely a chemical phenomenon. But it may happen that a minute organism chanches into a medium containing little or no oxygen-gas; amid these new conditions where it becomes necessary to move towards sources emitting oxygen by voluntary effort and directed motion, it has been discovered that a great number of Micro-organisms, and particularly Bacteria, are capable of detecting the expansive power exerted by oxygen in the liquids in which they are found. When bacteria of putrefied matter are put in a drop of water containing no oxygen but in which have been placed chlorophyll algæ, or green Euglenæ, or grains of chlorophyll obtained by

crushing green cellules, nothing happens in the first instant; but if the preparation be illuminated so as to allow the chlorophyll to act, the bacteria are seen to exhibit very rapid movements and to proceed, all together, towards the points of the preparation where the generation of oxygen is taking place, that is to say, about the grains of chlorophyll. Under these conditions a chemical exchange is instituted between the chlorophyll and the aërobious Bacteria: the Bacteria disengage carbonic acid gas and absorb oxygen; the chlorophyll fastens upon the carbon of the acid and sets the oxygen at liberty. If the preparation be darkened the Bacteria cease assembling about the chlorophyll grains, which, hid from the light, cease to disengage oxygen. The clustering begins anew, if a ray of sunlight is again let touch the chlorophyll.

Analogous facts have been observed under circumstances somewhat different. In a preparation from the intestines of a silk-worm, M. Balbiani has seen Bacteria which were uniformly distributed throughout all points of the preparation, gather about the green and undigested cellules of the leaves contained in the intestines, and bury themselves in them as if to partake of them. In other instances, the same naturalist has observed that Bacteria developed in a drop of silk-worm's blood, would gather, after a while, about the globules of the blood; undoubtedly for the purpose of seizing the oxygen being absorbed by them.

Upon the basis of these facts M. Engelmann has established the method called the Bacteria method. He regards bacteria as a living reagent which enable us to reveal the trillionth part of a milligram of oxygen, that is to say, a quantity scarcely greater, according to the calculations of physicists, than a molecule. This curious method enables us to explain biological problems which had hitherto remained unsolved. Before this, it was not known whether the colorless protoplasm of green plants could or could not disengage oxygen. It is now known, thanks to the bacteria, that grains of chlorophyll are the only points about which the liberation of oxygen takes place. The same method has enabled us to prove, in the variegated plants, that the maximum liberation of oxygen coincides with the maximum absorption of light. Thus, in the case of green algæ, the red and the violet colors of the spectrum are the spots where the bacteria ac-

\* Translation copyrighted



cumulate the thickest; consequently here is where the liberation of oxygen is greatest. Now, these colors correspond to the lines of greatest absorption in the spectrum of chlorophyll. In the case of brownish yellow cellulose, the maximum action is in the green; in the case of bluish green cellulose, in the yellow; in the case of red cellulose, in the green. The author has concluded from this that there exists a series of coloring substances which, like chlorophyll, have the power of resolving carbonic acid gas; he calls them chromophylls. In the same way, moreover, this method enables us to solve the question of the distribution of energy in the solar spectrum. As M. Engelmann has remarked, it is interesting to see the Bacteria come to confirm our theories as to the composition of solar light.

Bacteria are not the only organisms that eagerly make towards points where oxygen is to be found. A large number of other Micro-organisms act in the same way when they happen into a medium lacking oxygen. M. Ranvier has noticed that if a preparation containing leucocytes, screened from air, be examined for a certain length of time the cellulose will be seen to throw out long filaments towards the part that faces the air-side of the preparation. It appears, then, that a rudimentary oxygen-sense exists in the protoplasm of Proto-organisms.

This sense does not merely apprise the organism of the presence of oxygen; it enables it, further, to gauge the tension (expansive power) of the gas. So that, when the tension becomes too powerful, the organisms are seen to flee before it.

(To be continued.)

#### THE PROBLEM OF CAUSALITY.

Causality, the law of causation, is the basis of all our experience, and a clear conception of causality is indispensable to correct observation as well as to sound reasoning. In spite of this, the problem of causality has been unbecomingly neglected; the vagueness of terms, the lack of lucidity, and the innumerable errors springing from such uncertainty are astounding. Expressions such as 'first cause,' 'ultimate cause,' 'final cause,' 'remoter cause,' 'general cause,' 'universal cause,' '*causa sui*' are in vogue among thinkers of no inconsiderable repute. In elucidating the problem, we shall first propose a few examples, then our definitions, then some explanations, and finally discuss the erroneous conceptions of causality.

#### EXAMPLES.

I. A sculptor is modeling in clay; after much pressing, trimming, and finishing, a figure is shaped. The form of the statue is the effect of his work. [Production of a new form of matter.]

II. A key on the piano is touched, the hammer

strikes the chords, and a sound is produced. The sound is called the effect. [Production of a new form of energy.]

III. A chemist brings hydrogen and oxygen together. An explosion takes place and water is produced. The water is called a product of the combination, and the form in which hydrogen and oxygen are combined in water is the effect; of which the combination (the act of combining) is the cause. [Creation of a new form of matter, being another substance and exhibiting new properties.]

IV. The trigger of a loaded gun, pointed toward a deer, is pulled. The deer is hit and dies. The pull on the trigger is the cause, and the death of the animal is the effect. [Destruction of form.]

V. During a rainless season water is poured every evening on an almost withered plant. The plant commences to thrive, it grows and sprouts, and after a while it brings forth blossoms. The plant's blossoming is the effect of its repeated irrigation. [An example from the vegetable kingdom.]

VI. A mother loving her child more than her life, observes that a lion of a menagerie is at large in the market-place. All people flee. Her baby is left behind by its nurse and the lion approaches the infant. The mother rushes out of the house and rescues her child in the face of the lion. [An example taken from human life; the story is an historical fact, known under the title of "The Mother of Florence." The cause, in this case, is the motive of the mother; the effect is the rescue of the child. The motive is mostly a very complicated state of mind, which in the present instance can be summarily characterized as a mother's desire to save her child.]

#### EFFECT.

The effect has not existed before. It has been produced by its causes. What then is the effect?

Matter cannot be created, and energy cannot be created; the effect, therefore, can only be a *new form* of matter and energy:

I. The clay of the sculptor existed before the statue; the form of the statue alone is new.

II. A sound is a special vibration of air. The air (in instance No. II) is not created nor is the motion of the air created out of nothing. The vibration of the sound is nothing but transmitted energy coming from the muscular action of the finger that struck the key. The effect, accordingly, is a special form of energy agitating the air.

III. The material elements of the water ( $H_2O$ ) existed before their combination. The water, in so far as its material particles are concerned, has not been produced. The effect of a chemical combination of  $H_2O$  can be called water in so far only as water signifies the *form* into which the elements have combined. In



common language we make no distinction between water as matter and as a combination of the two elements.

IV. The death of an animal caused by violence or by natural sickness is destruction of form. True, it is a destruction of life, but life is not a material object, not a thing of substance; life in the narrower sense (the individual life of a deer) is the spontaneous activity of a certain body; it is a form of nerve-energy. Life in the broadest sense of the word, meaning force, or spontaneity, or self-motion, with which all matter is endowed, can not be destroyed. It is indestructible, as we know from the law of conservation of energy. But life in the narrower sense is a certain combination of energy in the special form of an animal body. Death is the destruction of this form; while propagation, being growth and transmittance of form, is a continuance of the paternal form of life in offspring.

V. The blossom of a plant is not the effect of its irrigation. The matter of the blossom, the elementary particles of which the blossom consists, have existed before as water, air, and parts of the soil. And the vegetative energy stored in its cells has also existed in the shape of sunbeams or otherwise. The effect produced is this special form, in which by assimilation and transformation the organs of the plant have combined energy and matter as a blossom.

*Definition.* Accordingly effect is a new state of things: a new arrangement; a new form produced through some alteration of circumstances.

#### CAUSE.

The previous state of things, which existed before any effect was produced, cannot have been at rest. If it had been at rest, no effect would have been possible. The previous state of things must have been in motion. Without motion no causation. Motion is an alteration of place. When properly combined, the atoms of oxygen and hydrogen will shape themselves into new configurations. The cause is a motion; it is their properly meeting each other. The atoms being of a certain size and shape, and having special powers of attraction, so that they fit to one another, appear in the new form of water.

A chemist who makes the experiment has, as a matter of course, to observe all the conditions under which the process takes place.

A gardener who waters a plant must at the same time take care that the plant receives sufficient sunlight, that it stands in good soil, and is protected from injurious insects. These facts taken altogether, are called the circumstances. Circumstances in so far as they are indispensable to the realization of an effect, are called conditions

*Definition.* Cause (being the factor that produces the effect or the new state of things) is a motion. It is an alteration in a certain state of things whereby a further alteration, a re-arrangement or a new combination, becomes necessary.

#### EXPLANATIONS.

1. *Causes and Conditions.* It is obvious that if in a certain state of affairs the effect is produced by several, perhaps simultaneous, movements, we may arbitrarily call one of them the cause and the other ones its conditions, or we may call all of them together the causes. So for instance, the sunbeams (not as things, but as a motion, as ether-vibrations) may be called the cause of blossoming just as well as the watering; or we may designate both as the common causes.

2. Cause and effect are two states, the one following the other: The causal state disappears by creating the state of the effect; or in other words, the cause, vanishing as such, reappears in the effect. The same matter, the same energy are exhibited in a new form or a new combination.

3. The scholastic maxim, *cessante causa cessat effectus*, is accordingly wrong. The cause is always passed, if the effect is produced.

4. Causes and effects form an infinite chain of alterations; every cause is the effect of another cause; and every effect can become the cause of another effect. If a key on the piano is touched, a lever is set in motion which raises a hammer; the hammer strikes against the chords and sinks back; the chords vibrate according to their length and induce in the air corresponding undulations. The air-waves meet a human ear and transmit their rhythmic motions to the tympanum, thence the disturbance passes through many stations in the aural apparatus and reaches the auditory nerve where it is perceived as sound. In this and in all other chains of causes and effects, any of the succeeding stages may be called the effect of its antecedents and the cause of its consequents.

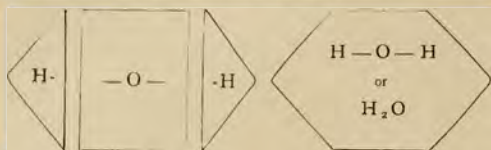
Accordingly the signification of cause and effect is to a great extent arbitrary and depends much upon the proper tact of the observer. He should select as cause and effect two states which somehow correspond to one another in importance for a special purpose. How far the intermediate links can be neglected, depends upon circumstances.

5. Our example No. III (the generation of water) is often used as an instance to prove the transcendence (or unknowability) of the law of causation. However, there is no room for mysticism if we take into consideration that the product is a new molecular form of its constituent elements. By molecular form of water, we understand the combination of  $H_2$  with O in that special form in which it appears as water.

Suppose we have a rectangle of 5 x 3, and two equi-



lateral triangles, the bases of which are 5 and the sides 3. Combine the two bases of the triangles with the longer sides of the rectangle and we will have a hexagon all whose sides are 3. The rectangle, as such, has disappeared, and the triangles, as such, have disappeared also. A new form is created, a hexagon, which has lost the properties of its component figures and possesses properties that were not exhibited in the same. The longer sides of 5 which existed in the triangles as well as in the rectangle are as such altogether lost in the hexagon. The hexagon is equilateral and has six obtuse angles, while the triangles have two acute, the rectangle four right angles, and neither the triangles nor the rectangle are equilateral.



Some imagine that the properties of a combination must have before existed in a latent form; but in our geometrical instance this is evidently impossible. The hexagon is an entirely new form, which has neither existed in the one nor the other of its components. If such is the case in this extremely simple instance, how much the more is it true of the highly complicated combinations and changes of form in reality, which by the smallness of atoms are not directly observable, and can often only be guessed or traced with greatest difficulty!

It is a fact which is overlooked by great thinkers that by combination or change of form things can be created which never existed before in that form, and the qualities of which can neither as latent nor as apparent properties be traced in their constituents.

6. Materialism overlooks the importance of form. While justly opposing the wrong conception of any immaterial existence, materialism goes too far when it considers matter as the only aspect of phenomena, thus making it the sole principle of explanation. Mr. Spencer tries to reduce everything to matter and motion, and Professor Louis Büchner similarly proposes his philosophy of *Kraft und Stoff*. In this way they fail to see that evolution, progress, the occurrences of inorganic nature as well as the highest aspirations of man, can only be explained from the fact that new combinations or new forms are actually new creations.

It is undeniable that immaterial realities can not exist. The thing exists by its being material; and its reality is manifested by its being a combination of energies; it is a *Kräfte-Complex*. But the thing exists *as such*, because it has a certain form. Destroy the form

and the thing as such ceases to exist and changes into something else.

Diamond, graphite, pure coal, and soot, so far as their material constituents are concerned, are the same; all being carbon. And yet they are radically different things, with different properties. Diamond is as white and clear as water and as translucent as air. It is the hardest substance known in nature. Coal, graphite, and soot are of the deepest black, and are soft enough to leave dark, lead-colored traces on paper. Diamond is rare and valuable, while the other formations of carbon abound in nature. The difference of these simple substances is exclusively one of form.

Combinations of the same chemical composition, with different properties, are called isomeric. For instance, the formula  $C_2H_4O_2$  represents acetic acid as well as methyl ether of formic acid, the former being an acid the latter a neutral substance. The boiling point of acetic acid is almost  $90^\circ$  higher than that of the methyl ether of formic acid, and with same substances the one forms other combinations than the other. Grape sugar, being  $C_6H_{12}O_6$ , consists of the same elements in the same proportion also. Quite different from the other two substances, it is sweet, crystalline, capable of fermenting, and neutral to litmus paper. It is neither an acid, a base, nor a salt.

Graphic formulas\* have been invented in order to give a visible expression to such differences.

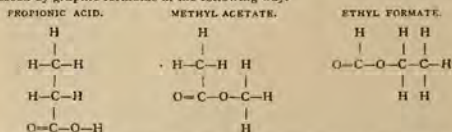
Consequently a thing, a body, a substance, is not only the sum total of its material elements, it is the *form* of its material elements. Materialism is right in so far only as it maintains that things exist at all because they are material; but it must be remembered that they exist *as such* because they have a certain form. Form, so to say, is the soul of things.

The same is true of man. Man is not only an aggregate of matter and energy; he is an aggregate of matter and energy in a *special form*. And it is the form which makes him a man. Prof. Büchner says: †

"The greatest of all poets who has ever lived and whose masterpieces are immortal, because he stood upon this ground of truth and reality, *Shakespeare*, was already a Materialist in his

\* The elements differ in atom-fixing power. An atom of hydrogen, being able to attach to one atom of any other substance, is called a monad, which is expressed by H'; an atom of oxygen is a dyad, O''; nitrogen a triad, N'''; carbon a tetrad, C'''' or C<sup>IV</sup>. The graphic formula for water is: H—O—H.

Propionic acid, Methyl acetate, and Ethyl formate (all three being  $C_3H_6O_2$ ) are, as their names suggest, entirely different substances. They have been expressed by graphic formulas in the following way.



† "Materialism, Its History and Its Influence upon Society." New York: The Truth Seeker Co.



innermost convictions, and with his prophetic eye pursued the eternal wanderings of matter as the last and primitive cause of everything that exists, through the same pathways, upon which modern science has traced it with mathematical certainty, when he says (Hamlet, v. 1):

Imperious Caesar, dead and turned to clay,  
Might stop a hole to keep the wind away;  
O! that the earth that kept the world in awe,  
Should patch a wall to expel the winter's flaw!"

In the bible God says to man: "Dust thou art and unto dust shalt thou return." So, God must have been "already a materialist in his innermost convictions." But this biblical utterance is only one side of the truth, it is the one-sided truth propounded by materialism. The other side of the truth is, that man as such is form; and form is changeable; it can be evolved, and this evolution of form is the purpose of our life, the ideal of our aspirations and the basis of ethics.\*

#### WRONG CONCEPTIONS OF CAUSALITY.

1. Cause is an alteration in a state of things and effect is a new arrangement of things. But cause and effect are never objects or things. A thing by its motion or a person by his labor may produce an effect; but the thing itself or the person is never a cause, nor is the thing produced an effect. A sculptor may carve a statue; the sculptor is not the cause, and the statue as a thing is not the effect. The sculptor's labor is the cause; and the effect is the special form of the wood, clay, stone, or bronze, *i. e.*, the statue without reference to its material.

2. God has been called 'first cause.' First causes are of mere relative existence. A first cause is the starting-point in a series of some longer chain of causes and effects. The first cause in our second example is the touching of the key; all the effects of this cause are later causes in the series. According to the nebular hypothesis of Kant the first cause in the formation of our planetary system must have been an unequal distribution of matter. This state of things happened many billions of years ago, and has passed away, as any cause must disappear when its effect has resulted.

'Ultimate cause' is a synonym of 'first cause.' The first term becomes the ultimate one if we count backwards. The expression 'ultimate cause' is even more unfortunate than first cause.

3. Hume speaks of 'general causes,' meaning thereby natural laws. The Germans distinguish between *Grund* and *Ursache*. *Ursache* is what we have defined as cause; *Grund* is the law by which we explain why the cause acts. *Grund* is the *raison d'être*, the reason, the principle, the law according to which things change or move, and according to which men act. For instance, gravitation is not the cause that a stone falls to the ground. The cause may be

that my fingers let it go. Gravitation is the *raison d'être* of a stone's fall in this particular instance as well as in any other case. A cause is a single event, a single fact, a certain motion or alteration. The *raison d'être* of gravitation, however, is a general law and a principle of explanation.

Those who call God the first cause really mean to call God the ultimate ground of the world; they intend to represent him as the most comprehensive principle of existence; as the ultimate generalization of all laws.

4. The scholastic dictum, *cessante causa cessat effectus*, which is quoted above as wrong, refers to this *raison d'être*. It should read, *cessante ratione cessat causatio* *i. e.*, if the ground or reason, the rationale, ceases to be valid, the cause cannot take effect. For instance, love of freedom was the *raison d'être* of Greek industry, progress, and civilization. As long as this love of freedom prevailed, Greece was free, prosperous, advancing, and civilized. As soon as this love of freedom yielded to indifference, avarice, and other vices, Greece began to decline. It was a ground but not a cause—it was a continuous principle which manifested itself in many single cases. So the law of gravitation is no cause, but a law recognized in many instances and regulating the causation of gravitational objects.

5. The *causa sui* of Spinoza is one of the worst self-contradictions in existence, designating "a cause which is the cause of itself." Spinoza apparently means *ratio sui*, a reason or principle which explains itself; a ground which has its ground in itself, meaning a self-evident truth that for verification does not depend upon some other evidence. Spinoza confounds this *ratio sui* with the idea of an absolute existence; *i. e.*, an existence which contains in itself the ground or *raison d'être* of its existence. On this logical error rests the whole structure of his grand and noble philosophy.

6. 'Final cause' is a most unfortunate expression for purpose. The schoolmen distinguished 'effective causes' and 'final causes.' It is obvious that all causes are effective. If a certain cause is the will of a man, the idea which guides him is an indispensable condition. This idea is the end to be attained. If such causes are to be called 'final causes,' we must bear in mind that these 'final causes' are just as much effective causes as any others. There is no essential difference. Both result into their effects with the same necessity.

Final cause being an inappropriate synonym of purpose, has only sense when it is used in reference to a will. We cannot speak of the final cause of cereals as being serviceable food for man. There is no final cause in nature outside of the province of volition.

\* Compare Mr. E. C. Hegeler's essay, "The Basis of Ethics," in No. 1 of the OPEN COURT, and the editor's pamphlet, "Monism and Meliorism," V., §59.



7. *Causality immanent.* The 'world no chaos, but a cosmos.' Those who use the word 'final cause' in a more general sense, imagine that a divine providence has arranged the order of things according to some plan or design. They consider the universe by itself as chaotic, and believe that God imposed law and order upon it from the outside.

Materialism, denying altogether the existence of final causes and design in nature, falls into the same error as its enemy, dualistic superstition. Materialism also considers the universe as originally chaotic, and explains the order of the world as the fortuitous outcome of haphazard, which if once happily arranged has necessarily more stability and more chance to continue so than other, chaotic formations. This view disagrees with facts. The relatively chaotic combinations of lower natural manifestations are more stable than the higher evolved forms of life, the highest forms being least stable.

Monism teaches that the order of the universe is not transcendent; it is not imposed upon nature from the outside; the order of the world in its mechanical regularity is immanent. The world is no chaos, it is a cosmos, and if God is to be called the order of the universe, monism teaches that God is immanent; God and the universe are one.

8. *Order not fortuitous, but necessary.* The truth that the creations of nature, planetary systems as well as organisms, the organs or limbs of animals and plants, etc., are necessary and not fortuitous results, does not stand in contradiction to the fact that nature before realizing the relative perfection of a certain formation has to meet with many failures. These failures are the stages on the highroad of creation and are as such the indispensable conditions of a final success.

Organs perform certain functions. These organs have neither been devised by a provident demiurge, nor did they originate by chance. Comparative physiology has proved beyond any doubt that every organ has been produced by its own function. A function again is the *consequens* of a want, being some readjustment or solution of a certain tension. The chemical affinity of protoplasm to oxygen and water, etc., produces, after a consumption of these materials, a kind of hunger to replace them. The hunger of protoplasm for oxygen has produced lungs and the pores of the skin, while the hunger for water and food has formed stomachs. All the many thousand trifling processes which take place from the first dimly felt want to the relative perfection of a properly working organ are necessary steps in the course of evolution.

Imagine how many billion atoms one drop of protoplasm contains! How many billion times billion

combinations of these atoms are possible, and how many more are impossible. Should nature have tried them all, or at least part of them at random, until at last she has happily hit one of the right combinations, a possible combination among the unlimited number of impossible combinations? Certainly not! The origin of life, or of protoplasm, or of any organic or any orderly arranged form, cannot be explained as a fortuitous result. One might just as well maintain that the Iliad originated by a fortuitous combination of Greek letters; and with some pretence of proof you may adduce the fact that we have evidence for several futile attempts preceding the consummation of the Iliad, being made to create national epopees in Greece; the last attempt, having happily been the right one, survived. The error of this theory is manifest. Organic life and all orderly arranged forms of nature originate by necessity according to mechanical laws, and necessarily only the better ones can survive.

Supernaturalism says: "The order of the world is the result of some wise and omnipotent providence." The demiurge has arbitrarily made the world, as it is, in monarchical fashion according to the rule, *car tel est notre bon plaisir*.

Materialism says: "Reason originates by chance from the Unreasonable." *Vernunft* must be explained from *Unvernunft*,\* order from disorder, for order is only one of the many possible states of disorder.

Monism explains order from order, and declares that the most complicated forms of order can be reduced to the most simple laws. The most difficult calculations of higher mathematics are based on the simple functions of addition and subtraction, the most abstract logical conclusions ultimately rest on man's faculty of combining and separating† his concepts, and man's thoughts as well as emotions being, physically considered, motions which take place in his brain-cells, work in accordance with certain laws. The science of the laws of motion is called mechanics.‡ Consequently, as sure as there is order everywhere, in the formation of nebulae as well as in the formation of life, man's thoughts work in accordance with mechanical laws.

In brief, the order of the world is neither a fortuitous result in a play of blind forces nor the designed wisdom of a personality like ourselves, only omnipotent in his powers; the order of the world is throughout immanent and necessary.

P. C.

\* See translation from Kant in the editorial remarks to the article "Monism and Religion," page 1206 of THE OPEN COURT.

† We prefer the expression "combination and separation" or "combination and abstraction" to Max Müller's "addition and subtraction."

‡ Mechanics, as all the other formal sciences, mathematics, arithmetic, geometry, logic, etc., cannot be employed for enlarging our experience or explaining the ultimate *raison d'être* of existence. But our experience must, throughout, conform to the because existence is throughout regulated by these formal laws.



## MONISM AND RELIGION.

A REJOINDER. BY DAVID THEOPHILUS.

With Editorial Remarks.\*

(Concluded.)

My worthy opponent Mr. E. P. Powell says, that whoever inquires into the cause of phenomena, is religious, nay, must be religious, as in this way he must come upon a first cause and a final cause or design in nature: and that Strauss, by virtue of his being a man of science, had more religion than Talmage. Doubtless, this is a novel method of looking at things. If what he says is a fact, then there cannot be meaning in words, nor truth in history. What history tells on the subject is that the scientific conception excludes the religious, and that by pursuing the scientific method men have not acquired religion, but lost what they once had.

[Mr. Theophilus, differently from Mr. E. P. Powell, uses the word "religious" in the sense of "superstitious."—Ed.]

To a man who views the world from the monistic point of view, the idea of first and final cause or design is inadmissible: for it is a conception born of dualism.

[Mr. Theophilus is correct in stating that the ideas first and final cause are untenable. For further explanation of this subject see the editorial of this number.—Ed.]

The idea of causality, doubtless, has been obtained from the consciousness of ourselves as agents. It has been got by simply projecting our own causality or personality back to the dim past, and telling it make things out of nothing or otherwise; and then name it God. But what is the use of such a fanciful creation, when its realization is unthinkable. It is not power we want. It is not will; nor is it intellect: nor anything else known to our faculties. Nothing in our line of goods will answer the purpose.

Two gaseous substances come in contact under certain conditions, and water is produced. A male and a female unite under certain other conditions, and a living being is the issue. The mind of the chemist is given credit for the one and the Divine mind for the other. But as a fact, the greatest chemist that ever lived is as ignorant of the process as the browsing ox in yon field.

[That is hard on our scientists, but it is not true. If it were true, it would be useless to take the trouble to investigate, for the browsing ox is undoubtedly happier than most men.]

[The above statement of Mr. Theophilus would be true if the agnostic dogma could be proved, that behind every knowable phenomenon there is something unknowable as its cause.]

[Should Mr. Theophilus really succeed in proving that our scientists know no more about the process of generating water from H<sub>2</sub>O than the 'browsing ox in yon field,' I shall become a convert to agnosticism and reverently bow down before the Baal of Unknowability. Agnosticism stands in opposition to theology, in so far as it is supernatural dualism. Theology declares that "the first cause" of natural phenomena is a personal being like ourselves; agnosticism says that the causes of phenomena are unknowable, but anyhow they cannot be personal. Monism knows nothing of such "unknown causes." Causation is no mysterious process and causality is the very condition of the knowability of nature. Any kind of dualism, the theological as well as the agnostic dualism, if consistent, will lead to mysticism. Here the two bitter opponents may shake hands.—Ed.]

Magnify an intellect a million fold and tell it produce one

small particle of dust, or cause one blade of grass to grow, and it will be as incapable for the feat, as the embryo that lies in the mother's womb. And yet, when certain conditions are there, the blade of grass, we all know, will come forth, and must come. There is no power in the universe to prevent it. It is under as much compulsion to grow when the conditions are present, as not to grow when they are absent. And the same is the case with dust formation.

The truth is, a man who professes himself a monist knows no first nor final cause, nor indeed causality in the true and original sense of the word, as involving the idea of a conscious self-acting agent.

[We go one step farther than Mr. Theophilus. We not only exclude "the idea of a conscious self-acting agent," we exclude all kinds of agents, also the impersonal agents which are supposed to be the mysterious unknowable in natural phenomena.—Ed.]

First and final cause are words and conceptions which belonged to the vocabulary of dualism. They did duty under the regime of theology, faith, and metaphysics; at a time when everything was explained by putting an agent, a soul, or a god behind it, and when there was no question asked as to how it got there.

A strictly man of science or monist, has no ideas corresponding to the old conceptions connected by such words as first cause, design, or final cause. The truth of this has been fully and clearly grasped by the great monistic thinkers of the past, notably by Lucretius and Spinoza. To these master thinkers, looking upon the world from the monistic standpoint, such ideas as design, final cause, God, soul, immortality, providence, religion, necessarily lost their signification. And the words no longer for them had any use or meaning. The ideas had been effaced from their mind by the larger conception which had taken hold of it.

[Spinoza attempted to change Des Cartes's dualism into a unitary conception; his system is one of the grandest philosophies ever thought out by a mortal. If he did not succeed in propounding true monism, it must be attributed to his misconception of the word "cause." The idea of God did not lose its significance with Spinoza; it was certainly not "effaced." His God is defined as *natura naturans*, as *substantia*, and as *causa sui*, which latter term is even more incorrect than "final cause" or "first cause."—Ed.]

The flickering light of the rush-candle is of use only in the dark. When the sun rises its utility is gone. Similarly, a large, comprehensive view of the world, renders all local, provisional, limited, make-shift conceptions useless; like a complicated piece of machinery superseding the use of all previous crude manual contrivances.

Lucretius saw in nature only the eternal conjunctions, separations, and interdependence of elements. And the existing order was no proof of a designing mind, but simply a special arrangement of the infinite possibilities of the combinations of the primary elements. The first elements after testing every kind of position and production possible by their mutual unions, at length settled in the form and way they now present; and preserve it, because such a position has been found on trial conducive to preservation or existence. And as was the case in brute nature, the same Lucretius found in civil societies. Order is the result of no pre-arrangement designed by the wise man, but the outcome of the conflict of wills, desires, and impulses.

It was only after the exhaustion of physical violence that order or equilibrium was obtained in nature. And it was only after traversing many false paths that mankind attained finally to the right, which, when once found, afterwards maintains itself, simply by reason of its intrinsic worth.

What is called order in both external nature and human so-

\* Lack of space prevents us from writing an editorial article in answer to this Rejoinder. The necessary replications will appear as parenthetical insertions marked by hanging indentations. The Rejoinder by Mr. Theophilus refers to the Editorial in No. 30, "Superstition in Religion and Science," and to Mr. E. P. Powell's article, "Monism and Religion," in No. 35; it was received a few weeks after the appearance of the latter, and its publication had hitherto been chiefly delayed on account of the pressure upon our columns.



ciety was simply the way wherein coexistence of particles or of individuals, is maintained. Maintenance of existence is the criterion of order. The elements or individuals might have come in contact and separated millions of times. In such cases there was no order or law; but when a permanent union was formed, there too was necessarily order.

Mankind finding permanency, and therefore order, in things during their own lifetime and that of a few of their ancestors, jump to the conclusion somebody must have made it so. Such a conclusion doubtless seems plausible enough to them from analogy of their own activity. Man as agent or person puts other things together in this or that shape to suit some previous plan; and by analogy he argues there must be somebody who placed things in the shape they now wear. But what right has he to measure the operations of the universe by his own doings? It is nothing but lack of knowledge of the actual facts that compels a man to resort to this arbitrary method of explaining things. Nevertheless it has been used universally in the lower stages of progress to explain all problems.

[The great difference between the materialistic and monistic conception of the world is, that the former considers the present order of things as fortuitous, the latter as necessary. Materialism says: "The first elements, after testing every kind of position and production possible by their mutual unions, at length settled in the form and way they now present." Monism says: "According to mechanical law they arrange themselves thus and not otherwise." Consider how many billions of other compositions of the atoms in an amœba are possible, or at least thinkable! And nature should have tried all these infinite possibilities, or part of them, before creating the amœba, and then the hydra, and then the worm, and so forth? Oh no! The order of the world is no hap-hazard effect, it is no fortuitous outcome of chaos. *There is no chaos and never has been a chaos.* Even in the gaseous nebula there is order and law, and it appears as chaos only in comparison to the more evolved state of a planetary system. Thus the barbaric stage of savage life appears to us as lacking in social order; and our present state of civilization, it is to be hoped, will appear to future generations as the chaos out of which their better arranged society emerged.

[Kant says on this subject: "The aforementioned expositors of the mechanical theory of cosmic genesis (Epicurus, Leucippus and Lucretius) derived every arrangement perceptible in the cosmic system from fortuitous accident, which caused the atoms so to hit together that they made up a well-ordered whole. Epicurus, indeed, was so presumptuous as to require the atoms to swerve from their direct motion without any cause at all, in order to be able to meet one another. They, every one of them, carried this nonsensical principle so far as to ascribe the origin of all animate creatures to this same blind concurrence of atoms, and actually derived reason from what is not reason (*Vernunft* from *Unvernunft*). In my system of science, on the contrary, I discover matter joined to certain necessary laws. In its complete dissolution and dispersion I see a beautiful and orderly whole naturally developing therefrom. This does not occur through accident or at hap-hazard, but it is seen that natural properties necessarily bring it about."

[Kant argues that this necessary order is a proof for the existence of God. We add from our standpoint that this order is God.—En.]

History for centuries has been read in the light of the final-cause theory.

The powerful king, the holy priest, and the wise legislator, each and all were agents acting with foresight and wisdom upon passive human beings, in formation of societies and kingdoms, the establishment of religions, the promulgation of laws, and the form-

ing of constitutions. The great, holy, and wise men did everything as agents; and these in turn were looked upon as instruments in the hands of a remote agent—the Divine First Cause.

This final-cause method of interpreting history is now abandoned as false. It has been discovered that laws and constitutions, as well as religions, are simply the outcome of circumstances. They are growths and not creations.

And as was the case with history the fate of the theory has been similar in other departments of knowledge. The old orthodox way of accounting for the production of a good book was to assign its authorship to an agent other than the real author—the latter was inspired or divinely instructed. Now it is allowed that a poet is not made but born.

In psychology the final-cause method of research, after having held its ground for centuries, has been finally made to give way to a more scientific method. Intelligence is no longer accounted for by the hypothesis of a soul within us—an agent using the body or the senses as a medium. Here, as was the case in other provinces of knowledge, the theory has altogether fallen into discredit.

But in the study of nature generally, we must still, it seems, be guided by the very theory and use the very method which in other known fields of inquiry has proved false. The application of this method to the interpretation of nature is to Mr. Powell evidence of culture and development. According to him the more culture one has, with the more assiduity and thoroughness will be applied the design argument in the interpretation of phenomena; for what else can these and other similar expressions mean?—"In proportion as a brain is logical, cultured, and informed, it must have the religion of causality." He must have known that evidence went the other way.

The Design Argument has been more largely relied upon by men deficient in culture than by the well disciplined intellects. Among savage and barbaric peoples it is in universal use. It is to these the only natural and eligible method of explaining the world.

The Design Argument or First Cause philosophy is, at best, but a reminiscence or survival of the barbaric method of philosophizing. At a certain stage of culture it has generally been found inadequate. To Lucretius, Spinoza, Kant, Mill, Bain, Spencer, and Comte, it has, as an argument, proved altogether inadmissible, and these, doubtless, have had "brains logical, cultured, and informed."

[It must be understood from the outset that the ideas final cause and design in nature are untenable, if they are conceived as a plan made by a divine personality. But these ideas are not so utterly worthless as Mr. Theophilus thinks. Undoubtedly, there *is* design in nature, if design means order and law. There *is* plan and purpose in the evolution of organic life, if plan and purpose of evolution mean their development with a definite direction toward the realization of what may be called ideals, of certain forms of life higher evolved and better adapted to their conditions of existence so that they come more and more in harmony with the universal order of things.

[This design in nature will be the better recognized the more man advances in his comprehension of the unity of nature.—En.]

The verdict of science, so far as I am able to perceive, is, that by the mere use of the scientific method, there is discoverable in nature neither a First nor a Final Cause: and that postulating such a Cause is, therefore, unwarrantable.

[In closing our discussion with Mr. Theophilus, we express our sincerest thanks to our honored critic for the interest he takes in the religion propounded by THE OPEN COURT. Religion, it appears, is not so dead a letter to him as he imagines, and his zeal to remove superstition proves the power of religious principles upon his mind; a power called by Kant the Categorical Imperative, and "which the old religion possessed in a high degree"—a power, of which Mr. Theophilus has unjustly spoken slightly. This power, being the essence of religion, does not lose its hold upon humanity when superstition is removed.—En.]



## THE SOURCE OF POVERTY.

A CRITICISM OF WHEELBARROW.

NEW YORK, July 23, 1888.

To the Editor of THE OPEN COURT:—

Dear Sir:—Kindly permit me to offer a few critical remarks on "Wheelbarrow's" essay contained in No. 47 of THE OPEN COURT.

Wheelbarrow's eyes are not shut to the many symptoms of our social disease, nor is he unwilling to do his fullest share, by means of well meant suggestions, to mitigate these evils. But since he does not comprehend the nature of the disease, it is impossible for him to effect a cure.

"That squalor abounds in all great cities," says Wheelbarrow, "is confessed by everybody. Squalor is the sediment of cities. Its causes are a thousand, its cures must be as many."

Is this so indisputable as it is here stated, is Wheelbarrow so positive that all these symptoms are so many different diseases, springing from just so many different causes, and necessitating as many different cures?

To the experienced physician, the fact that his patient is complaining of headache, indigestion, pain in his side, and cold feet, is no evidence that he is suffering from four different diseases, nor will he, if he can lay claim to the title of a scientist, proceed and prescribe one medicine for headache, another for indigestion, and so forth; but he will try to trace, and in most cases does trace, all these symptoms to one great fundamental disorder, knowing fully well that if he succeeds in removing this one underlying cause, all the other complaints will without special treatment disappear.

So it is with our social disease. All the many different symptoms, squalor, ignorance, intemperance, the "scab," and many others, which to Wheelbarrow seem to be evidence of just so many different diseases, to my mind are but the outgrowth of one great fundamental, social disorder, that can be cured by nothing short of the removal of this disorder.

Poverty is the *real* disease, and nothing short of abolishing poverty can be the *real* cure.

Of what avail is it to moralize about the many petty defects of human nature. The poor man knows fully well that drunkenness is not confined to any class, that the rich man does his share of it, and yet it does not reduce him to poverty, he knows the rich man does not practice economy and yet does not grow poorer. Nay, he knows that the very fact that the laborer does economize, that he is saving a few dollars, will put but another weapon into the hands of his employer to further reduce wages, and will thus be turned into an evil rather than into a blessing. "The bank book of a mechanic," says Col. Ingersoll, "is a certificate that wages are too high." Thus giving in one sentence utterance to an indisputable economic truth. Under industrial conditions as they are prevailing now, where wages mean but their necessities, it will not benefit the laborers to reduce their necessities, but to that extent will reduce wages; thus directly benefitting not the laborer, but him who furnishes the necessities. Not that I do not appreciate the moral importance of sobriety. I have no apology to offer for drunkenness; nor will I attempt to shift it from the individual upon society (though a careful examination might succeed in doing so) as Wheelbarrow accuses Mr. Morgan of doing; but as an element of improving the material condition of the workmen, it can in the nature of the case, be of no avail. It is not the men we must try to improve, it is the conditions that make men what they are, that must be altered.

Wheelbarrow is mistaken. The problem is not, as he thinks it is, of how to reduce the expenditures of the poor, to enable them to curb their desires by teaching them the blessings of self-denial; the real problem is how to increase their income, how to procure them a greater share, or rather their full share, of what they produce.

When our great coal barons, in silent conclave, determine to have no coals mined for a certain period, thus raising prices and by a simple edict depriving thousands of men of the opportunity to employ their labor, does not Wheelbarrow see that the strictest economy, the temperance of a St. John can be of no avail to these unfortunate men? They have simply been deprived of an inalienable right; a right granted to them by every law of nature: the right to the use of the earth.

Here is the gist of the whole matter. A great, an enormous, moral wrong is being perpetrated upon the masses. Thousands, nay millions, of men are cheated out of their birthright, the right to the use of the soil. Are refused standing room upon a planet that has come into existence without the help of any mortal being, and yet is parcelled out and owned as if so many houses, which being the result of labor may rightfully be owned by those that erected them.

Here is the fundamental social disorder, and here must we apply the cure. It is not by restricting people's desires, by reducing them to a mere animal existence, as would be the result of Wheelbarrow's propositions; nor by restricting personal freedom in turning the whole state into one great co-operative shop as Mr. Morgan proposes to do. It is not restriction, it is freedom that labor needs. Throw open natural opportunities, give the widest field to all individual operations, put all men on an equal footing in regard to natural bounties, by taxing to the fullest extent and for the benefit of the whole community that fund which has been created by the whole community, and all the many different symptoms, which now are so perplexing to Wheelbarrow, will disappear as if by magic.

It is impossible, within the limit this letter must necessarily be kept, to detail the effects that would be produced by a remedy at once so simple and so radical.

It is simply intended to point out in general outlines, the social disease, the sole cause, and the only remedy. He who sees that it is not the imperfection of the individual, that it is not he that is to blame, that the millionaire is but the complement of the tramp, that both are by necessity turned out by the same fundamental wrong that is at the bottom of our social system, will at once recognize the impossibility of obtaining any permanent effects by doctoring on the external symptoms, and will clearly see that nothing short of rebuilding our whole social structure will be of any real and lasting benefit to the masses.

The pages of THE OPEN COURT teach in almost every line that the laws of nature are at once impartial and unchangeable. Between the man who owns a kingdom and him who has not a roof above his head the difference is so enormous that to the untrained mind it seems almost a difference of kind. But to the student of natural law it is perfectly clear that both are but creatures of the same natural forces, that it is manifestly the condition, based upon social laws and customs, and in direct violation of all natural laws, that has raised the one to a king and lowered the other to a tramp. That the one can no more help being what he is, a king, than the other can help being a tramp, and that in order to raise the one, we need but lower the other.

This is a truth which socialists are apt to overlook. They see the laborers engaged in fierce competition against each other and at once conclude to abolish competition. But competition is a natural law, and they can no more abolish it than they can abolish the law of gravitation. Nor will it operate injuriously unless it is artificially restricted, so as not to embrace all parts of a community. Where land, the most important factor of production, is fenced in and considered the property of individuals, it is the landlord in whose power it is to determine whether labor shall be allowed to produce, or whether it shall go to waste, and it is the same factor that makes the terms. The land being a fixed quantity, with the number of applicants to work it unlimited, the landlord is



at once put beyond the necessity of competing for labor, while labor, through immigration and natural increase has to compete harder and harder for the privilege of working the land, thus ever increasing the value of it, until the struggle for existence becomes so fierce that no reward is left but the bare means of subsistence.

These are the factors from which evolves the iron law of wages, and no amount of moralizing about self-denial, temperance, etc., will ever change them. But once throw open nature's bounties to all. Once allow labor free access to all natural opportunities, by abolishing all taxation upon the products of labor, and putting it upon land values, taxing them to the last penny, and it will be seen that the holding of land is made impossible unless turned to immediate use, and competition will at once begin to set in among land holders and labor will stand on an equal footing in the making of the terms.

These are the points which every economist, who has the betterment of the masses at heart, must consider. Since nature is not concerned with the making of millionaires and paupers any more than with the making of Jews and Catholics, but since all such unnatural phenomena are but creatures of our own making, the unavoidable consequences of our laws, of environment, that must of necessity be, and remain just what they are as long as the same conditions operate to produce them, it is evident that the aim of him who wants to do mankind *real* services, who wants to emancipate labor must help to change the conditions, to change the laws, and change them radically.

For the disease is deeply rooted "and a little benevolent perfumery sprinkled on the decaying spots of our social system will not disinfect the slums, we must go down below the surface of our industrial condition and wrestle with evil in the place of its origin."

This is true. But does Wheelbarrow go down below the surface? Is he wrestling with evil in the place of its origin? Does he intend to give labor back that which no mortal power could rightfully take away from it and without which it cannot possibly exist?

Does Wheelbarrow intend to give labor back the right to the use of the earth?

I remain yours most sincerely,

SOL. LEVY.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

#### CHAPTER XXIII—Continued.

There was general astonishment at the tea-table when the Doctor once hinted that he had been invited to a masked ball, and was not averse to attending the noisy gathering. The ball was given by a large circle of distinguished citizens, to which Mr. Hummel belonged. The peculiarity of this party was that the chief actors of the city were admitted as welcome guests. As the Doctor had hitherto never shown any inclination for this kind of social entertainment, the Professor was astonished. Laura alone guessed the cause, but all received the announcement of this unusual intended dissipation with silent pleasure.

Mr. Hummel was not of the opinion that a masked ball was the place where the worth of a German citizen was shown to greatest advantage. He had unwillingly yielded to the coaxing of the ladies in his family, and was now seen standing among the masks

in the ball-room. He had thrown the little black domino carelessly about his back like a priest's mantle; his hat was pressed down over his eyes; the silk fringe of the mask overshadowed his face on all sides, which was as unmistakable as a full moon behind thin clouds. He looked mockingly on the throng of masks that streamed past him, somewhat less comfortable and more silent than they would have been without masks and colored coats. Obnoxious to him more than all were the harlequins scattered about, who, at the beginning of the festival, affected an extravagance of conduct which was not natural to them. Mr. Hummel had good eyes, but it happened to him, as to others, that he was not able to recognize every one who was masked. All the world knew him, however. Some one tugged at his clothes.

"How is your dog Spitehahn?" asked a gentleman in rococo dress, bowing to him.

Hummel bowed in return. "Thanks for your kind inquiry. I would have brought him for a bite of the calves of your legs if you had been provided with that article."

"Does this kind of a Hummel-bee sting?" asked a green domino, in a falsetto voice.

"Spare your remarks," replied Hummel, angrily; "your voice is fast changing into a woman's. I quite pity your family."

He moved on.

"Will you buy a pack of hareskins, brother Hummel?" asked a wandering pedlar.

"I thank you, brother," replied Hummel, fiercely; you may let me have the ass's skin that your wife tore from your face in your last quarrel."

"There's the rough felt of our city," cried, pertly, a little clown, as he gave Mr. Hummel a blow upon the stomach with his wand.

This was too much for Mr. Hummel: he seized the diminutive clown by the collar, took his wand away from him, and held the refractory little fellow on his knee. "Wait, my son," he cried; "you'll wish you had a rough felt in another place than on your head."

But a burly Turk caught him by the arm. "Sir, how can you dare to lay hold of my son in this manner?"

"Is this chattel yours?" returned Hummel, furiously; "your blotting-paper physiognomy is unknown to me. If you, as Turk, devote yourself to the rearing of ill-mannered buffoons, you must expect to see Turkish bamboo on their backs, that is a principle of international law. If you do not understand this you may come to me to-morrow morning at my office; I will make the thing clear to you, and hand over to you a bill for the watch-crystal that this creature from your harem has broken for me."

Thereupon he threw the clown into the arms of the

\* Translation copyrighted.



Turk, and the wand on the ground, and clumsily made his way through the masks who surrounded him.

"There is not a human soul among them," he growled; "one feels like Robinson Crusoe among the savages." He moved about the ball-room utterly regardless of the white shoulders and bright eyes that danced about him, and again disappeared. At last he caught sight of two grey bats whom he thought he knew, for it appeared to him that the masks were his wife and daughter. He went up to them, but they avoided him and mixed in the throng. They were undoubtedly of his party, but they intended to remain unknown, and they knew that would be impossible if Mr. Hummel was with them. The forsaken man turned and went into the next room, seated himself in solitude at an empty table, took his mask off, ordered a bottle of wine, asked for the daily paper, and lighted a cigar.

"Pardon me, Mr. Hummel," said a little waiter; "no smoking here!"

"You too," replied Mr. Hummel, gloomily. "You see there *is* smoking here. This is my way of masquerading. Matters are becoming wearisome. Every vestige of humanity and all consideration for others is being trodden under foot to-day; and that is what they call a *bal masqué*."

Meanwhile Laura slipped about among the masks, looking for the Doctor. Fritz Hahn could easily be discovered by sharp eyes, for he wore his spectacles over his mask. He was standing in a blue domino, near an elegant lady in a red mantle. Laura pressed up to him. Fritz was writing something in the hand of the lady, most likely her name, for she nodded carelessly; then he wrote again in her hand, pointing to himself. Probably it was his own name, for the lady nodded, and Laura thought that she could see under her veil that she was laughing. Laura heard the Doctor speaking to the lady of a *rôle* in which he had lately seen her on the stage, and he addressed her with the familiar "thou." That was, indeed, the privilege of a masquerade ball, but it was entirely unnecessary. The Doctor expressed his pleasure that in the balcony scene the lady had so well understood how to represent the glowing feeling of passion in such difficult metre. The red mantle became attentive, and, turning to the Doctor, began to speak of the *rôle* she had taken. The lady spoke for some time, and then Doctor Romeo would continue still longer. The actress stepped back some steps into the shadow of a pillar; the Doctor followed her, and Laura saw that the red mantle curtly answered some other male masks, and again turned to the Doctor. At last the actress seated herself quite behind the pillar, where she was little seen by strangers, and the Doctor stood near her, leaning against it, and continuing the con-

versation. Laura, who had also placed herself near the pillar, heard how animated it was. The subject was passion. Now it was not the passion which one felt for the other, but that of the stage; but even that was more than a friend of the Doctor could approve of.

Laura stepped hastily forward, placed herself near Fritz Hahn, and raised her finger warningly. The Doctor looked astonished at the bat, and shrugged his shoulders. Then she seized his hand, and wrote his name in it. The Doctor made a bow, upon which she held out her hand. How could he know her in that disfiguring disguise? He gave decided proof of his ignorance, and turned again to the lady in the red mantle. Laura stepped back, and colored up to her temples under the mask. It was in anger with herself, for she was the unfortunate one who had brought him into this danger: and moreover she had come in such a disguise that he could not recognize her.

She returned to her mother, who had at last been fortunate enough to find a companion in Laura's god-mother, and had got into the corner of the room in order to exchange observations on the bodily development of the baptized little Fritz. Laura placed herself next her mother, and looked at the dancing masks with indifference. Suddenly she sprang up, for Fritz Hahn was dancing with the lady in the red mantle. Was it possible? He had long abjured dancing. More than once he had ridiculed Laura for her pleasure in it; even she herself had at times, when sitting before her private journal, thought how childish this monotonous whirling movement was, and how incompatible with a nobler conception of life;—now he was turning himself round like a top.

"What do I see?" cried her mother; "is not that —? and the red one is —"

"It is immaterial with whom he dances," interrupted Laura, in order to avoid hearing the hated confirmation of it. But she knew Fritz Hahn, and she was aware there was some signification in this waltz. Juliet pleased him much, otherwise he would never have done it; he had never shown her this mark of distinction. The old comedian of the city theatre approached them as Pantaloon; he had at last found out the two influential ladies; he tripped up to them, made grotesque obeisances, and began to amuse her mamma with his gossip. One of his first remarks was, "It is said that young Hahn will go upon the stage; he is studying his *rôle* as lover with our prima-donna."

Laura turned with annoyance from the flat remark. Her last hope was the time of unmasking; she impatiently awaited the moment. At last there was a pause, and the masks were removed. She took her mother's arm to go through the room to greet their acquaintances. It seemed a long time before she got into the neighborhood of Fritz Hahn, and not once did he



look at her. Laura made a movement with her hand to touch him gently; but she pressed her fingers firmly, and passed by fixing her eyes upon him. Now at last he recognized her, as he ought to have done long before. She saw the look of pleasure in his countenance, and her heart became lighter. She stopped while he exchanged some civil sentences with her mother, and she expected that he would acknowledge that she had already greeted him, but he did not mention a word of the occurrence. Had so many written in his hand that he could not bear in mind one poor little bat? When he turned to her he only praised the ball music. This was all the notice he thought her worthy of. His conversation with Juliet had been the free interchange of mind, but to her he only addressed a few indifferent sentences. Her countenance assumed the gloomy Hummel look, as she answered, "You used to have little sympathy for the jingling instrument to which the puppets dance."

The Doctor looked embarrassed, but laughed, and asked her for the next dance. This was bad tact. Laura answered bitterly, "When the grey bat was so bold as to flutter about Romeo, he had no dance free for her; now her eyes are blinded by the bright light." She bowed her head like a queen, took her mother's arm, and left him behind.

What followed was still more aggravating. The Doctor danced once more with the lady in the mantle. Laura observed how fascinatingly she smiled on him, and he danced with no one else. Of her he took no further notice, and she was glad when soon after Mr. Hummel came up to them and said: "It was difficult to find you. When I inquired of the people for the two ugliest disguises, you were pointed out to me. I shall be glad if to-morrow morning you awake without headache. We have had enough of pleasure to-day."

Laura was glad when the carriage arrived at home; she rushed up to her room, hastily took her book out of the drawer, and wrote rapidly:

"Cursed be my deed and cursed all sinful art.  
My own true happiness is now at stake  
A troop of enemies surrounds my heart,  
Which b'eeding from so deadly wounds will break."

she wiped away the tears which rolled upon her paper.

The bright light of the following morning exercised its tranquilizing influence on her fluttering thoughts. Over there Fritz Hahn was still lying in his bed. The good youth had tired himself yesterday. Many drops of water might still flow into the sea before friend Fritz would determine to unite his fate with an actress of tragedy. She brought out her supply of old ballads and selected one; it was a very jolly one: the May-Bug's Marriage—in which the may-bug on the hedge asks in marriage the young maiden fly. Many

little birds occupy themselves seriously about the wedding, but at last it is put an end to by some disreputable conduct on the part of the bridegroom.

"Good," said Laura; "my May-Bug Fritz, before you marry the frivolous fly Juliet, other birds shall have their say about it."

She folded up the song, and added to it a little note: "You guess wrongly. The person who sends this to you never was Juliet." As she closed the letter she said to herself, with more composure: "If he does not now perceive that he was mistaken, one cannot think much of his judgment."

The Doctor was sitting a little stupefied over his books, when his eye fell upon the above letter. He cast a look upon the Marriage of the May-Bug; he had never yet come across an old copy of it, and in rapidly glancing over it he saw that many verses were quite different from our current text. Then he took the note, and endeavored to interpret the oracle. Now it was clear that the actress was the sender, for who else could know that he had accosted her as Juliet, and that they had conversed long about this rôle. But what could the words mean, "You guess wrongly?" But even on this point his eyes were blinded; he had maintained that the representation of passion could only be to a certain extent attained by an actor, if he had never in his life experienced a similar feeling. This the actress denied, and they had endeavored to come to an agreement about it; her words, therefore, clearly meant that she had impersonated Juliet without ever having previously felt a great passion. This was a confession that showed great confidence—nay, perhaps still more. The Doctor sat long looking at the note; but he now felt pretty sure who his correspondent was, and the discovery did not give him pleasure. For when he had reasoned the matter out upon rational grounds, it had always been Laura's eyes that beamed upon him from the paper, though undoubtedly quite another look from that which she had favored him with yesterday. He laid the May-Bug Marriage with the other songs, and again asked himself whether he ought to continue the correspondence. At last he sealed in answer one of the worthless trifles of his portfolio, and did not write anything in addition.

Some days after, when the Professor and Ilse were walking through the streets, they passed by the dwelling of the actress; both saw their friend standing at the window of the heroine, and he nodded to them from within.

"How has he made this acquaintance?" asked the Professor; "is not the young lady considered very fast?"

"I fear so," answered Ilse, troubled.

(To be continued.)



## BOOK REVIEWS.

## WEBSTER'S DICTIONARY.

The excellent qualities of Webster's Dictionary are known. It is an indispensable piece of furniture in every office where literary work of any description is to be done. On glancing at the most recent edition before us, we find that it is worthy of all its renowned predecessors.

The very excellency of such a book, as this really is, has induced the public to rely on its definitions and explanations more than can justly be expected from a mere compendary work. Webster is generally resorted to by a large class of people for information upon scientific, technical, and philosophical terms, and this very confidence of the public (a consequence indeed of the excellency of the book) should impose upon the editors the difficult duty of presenting the most reliable definitions of words. So far as we can judge, this is done in the terminologies of the natural sciences, in mechanics, and other branches, but it is not sufficiently done with regard to philosophical terms. The explanations of prosody also lack precision. Other dictionaries, it is true, have been even more careless in this respect, and it cannot be doubted but that our dictionaries are to be blamed for much confusion that prevails in philosophical subjects.

We have taken occasion in an editorial on page 728 of THE OPEN COURT, to call attention to some of Webster's mistakes with reference to the word *noumenon*. Webster defines it as the "thing in itself, which is distinguished from the *phenomenon*." But it is the thing as a concept or idea produced by thinking, which is distinguished from the thing as a phenomenon represented in the sensory perception. Moreover, the verb from which it is derived, *noein*, is wrongly translated "to perceive"; it means "to think."

The popular misconception of a word such as 'noumenon' is, being perpetuated and sustained by Webster's authority, has become a stumbling block for many minds, and even for great English-speaking thinkers, to a proper understanding of Kant. If this fundamental term is misconceived, it is impossible to get at a clear conception of the Kantian philosophy.

There are a few other definitions deficient in one or another way, to which if time and space permitted, we would also like to call the editors' attention. The word *homaloid*, (from *ὁμαλός*, even) meaning 'flat,' with reference to space,—in which as Riemann expresses it, the curvature is equal to zero—is not yet contained either in the dictionary or its supplement.

P. C.

## NOTES.

*Book Chat*, published monthly at Brentano's New York, contains much food for bibliophiles.

The *Popular Science Monthly* of September contains a sketch and portrait of the great mathematician Carl Friedrich Gauss.

Amélie Rives has ventured on an historical drama, "Herod and Mariamme," published in the September number of *Lippincott's*.

The two first numbers of *Life Lore* are full of instruction. It is a monthly magazine of Natural History, particularly adapted to young readers.

The *Revue de Belgique* contains in its latest numbers (June, July, and August), an interesting essay by Emile Coemans, "*La femme dans l'ancienne Egypte*."

The *Century*, for September, contains an essay by T. T. Munger, commending the study of the Bible in our universities from a purely scientific standpoint.

Mr. Charles G. Leland tells his little readers in *St. Nicholas* for September, what to do with old corks. It is wonderful how an inventive mind can make use of this almost valueless material which is mostly thrown away.

The September *White Hawk* is as interesting as ever. Among other things it contains "A Little Lombard Hero," a touching Italian story, by Edmond de Amicis, translated by Miss Marcia Thouay, the little daughter of the American consul at Turin.

We call attention to the Editorial of this number which, it is hoped, will do away with many almost general misapprehensions. Criticisms of the essay will be welcome; if weak points in the argument can be stated, the editor will gladly acknowledge and correct his mistakes. Objections and questions will be answered so far as space and time allow.

We are in receipt of a pamphlet by Prof. George von Güzky, "Kant und Schopenhauer," containing two essays and considering the ethical views of both philosophers. Having critically examined Kant's faults, especially the scholasticism of his terminology, the lack of lucidity (it seems that he never strove for philosophical popularity), the slovenliness of style (his greatest works are too quickly written), Prof. Güzky concludes: "In spite of all, there is no doubt that Kant must be revered as one of the greatest ethical teachers of all ages and certainly the greatest German moral philosopher. His doctrines of Duty, of Good Will, of the Categorical Imperative, and of Moral Autonomy contain elements of imperishable worth." Prof. Güzky's book is a valuable contribution to ethical philosophy.

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### Recent Contributions to 'The Open Court.'

#### THE INDIVIDUALITY OF ATOMS AND MOLECULES.

REV. H. H. HIGGINS M. A. In Nos. 41 and 42.

Mr. Higgins says: "Evolutionists have to choose between discontinuity and the recognition of a universal principle of life, which may be regarded not as mechanical, but as inherent in the primordial atom." This idea underlies the theory of J. G. Vogt also. But Mr. Higgins attributes an individual *biar*, or life-unit, to every atom, while Vogt postulates a continuous, contractile, elastic world-substance, wherein the atoms of modern chemistry are made to be centres of condensation. Mr. Higgins hypothesis endows each atom with an idiosyncrasy which comprehends all that determines its individuality and makes it what it is. The essay should be read in connection with a letter in No. 43 upon "The Origin of Life and the Problem of Memory."

#### DETERMINISM VERSUS INDETERMINISM.

PROF. GEORG VON GIZYCKI. In Nos. 25 and 26.  
Georg Von Gizycki is Professor of Philosophy at the University of Berlin. His name is well known beyond the boundary of his country. The problem of the Freedom of the Will has perhaps never been treated in a clearer and more forcible manner. Contributions on the same subject have been published from E. P. Powell and Xenos Clark.

#### THE ETHICAL BASIS OF CHARITY.

W. ALANER JOHNSON.

The Editor of *The Reporter*, an organ of Organized Charity, Chicago, speaks not only from experience but takes the scientific aspect of this most vital problem. The basis of Charity must not be sought for in the sustenance of a pauper class who would not exist but for charity. The basis of Charity must be sought for in ourselves and our ethical nature. To this truth the principles and methods of doing the work of Charity must conform.

#### THE QUESTION OF IMMORTALITY

Is treated in the Editorial of No. 25, "Evolution and Immortality." It is shown that Immortality according to the Monistic view is immanent; it is a continuance of ourselves in our children, in our ideas and in the work we have done during life. Rudolf Weyler in his essay, "THE PROCESS OF PROGRESS," in No. 24, speaks of death as a mere transition and C. Billups in a letter of No. 25 criticizes the wrong notion of a transcendent immortality as taught by Dualism.

#### FREE-WILL A MECHANICAL POSSIBILITY.

XENOS CLARK. In No. 39.  
Mr. Xenos Clark here presents in an interesting and attractive manner certain scientific analogies bearing upon Free-Will and Determinism. A novel and ingenious application is here made of the theory of linkages and link-work which of late has so interested mathematicians and been developed with such striking success by Prof. Sylvester. The article will be found to be unusually suggestive, although it is not in concord with *THE OPEN COURT*, which, in an editorial of No. 33, admits the truth of both *Free-Will* and *Determinism*.

#### WHAT MIND IS.

PROF. E. D. COPE. In No. 40.

#### THE NATURE OF MIND.

By the Editor of *THE OPEN COURT*, No. 40.  
Professor Cope gives in clear and comprehensive outlines his view of mind; he opposes Materialism and Dualism, stating that "the situation is monistic." However, "as the amount of thought can most assuredly be measured, but the quality of thought can not," the eminent American scientist concludes that "consciousness has a field of its own where it ranges free from the bonds of energy." The directive element (will and mind) is qualitative not quantitative and controls the movements of the non-mental environment. "This statement may be called occultism," Prof. Cope adds, "and I suppose justly. But such is the fact."

In opposition to Prof. Cope, the Editor explains his view of mind. The qualitative faculties are a matter of form. Form is the essential characteristic of mind, and a superior mind indicates a superior form of brain structure. Form is an abstraction from reality and has by itself no efficacy. M. Ribot, the founder of the French school of experimental psychology, is quoted in support of the fact that consciousness by itself is not an effective factor in the motion of our limbs. "The consciousness of mental states may be indispensable for a proper direction of our will, but it does not possess motive power. Prof. Cope's view is considered inconsistent because leading to dualistic statements and to occultism."

A letter from Prof. E. D. Cope, which has reference to this discussion, is published in No. 42.



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SAN DIEGO, CALIFORNIA.







# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 56. (VOL. II.—30.)

CHICAGO, SEPTEMBER 20, 1888.

Two Dollars per Year.  
Single Copies, 10 cts.

## THE PSYCHIC LIFE OF MICRO-ORGANISMS.\*

BY A. PINET.

Translated from the "Revue Philosophique" by J. M. P.

PART V.

III.

### THE PSYCHOLOGY OF NUTRITION.

It will be necessary to go more into detail, in considering the psychology of nutrition.

The mode of nutrition among Micro-organisms is not uniform—a fact which ought not to appear remarkable when we bear in mind that this immense group is made up of all manner of heterogeneous beings that have nothing in common save the microscopic littleness of their bodies and the simplicity of their structure. Three main types of nutrition may be briefly distinguished.

1. *Vegetable nutrition*, or according to Bütschli's expression, *holophytic*. This is the method of nutrition among animal or vegetable cells that contain chlorophyll and that nourish themselves by forming organic nutriment from ingredients taken from the surrounding medium. It is hardly necessary to call to mind that the function of chlorophyll is that of nutrition and not of respiration. This phenomenon was formerly termed the diurnal respiration of plants. The expression involves several mistakes. Enough to say that vegetables respire as animals do, by uniting with oxygen, and that that respiration continues the same both day and night. The function of chlorophyll is by no means respiration; its office is to decompose the carbonic acid gas of the air and to seize the carbon, which serves the plant in forming ternary or quaternary substances. This chemical work is performed by all chlorophyll organisms when influenced by the radiation of light.

Chlorophyll does not belong exclusively to the vegetable kingdom. A large number of animal Micro-organisms are colored green by this pigment; they are met with principally in the important group of Flagellates. Their assimilative organs, which are likewise found in all green plants, bear the name of chromatophores; they have lately formed the subject of interesting investigations.

The chromatophores are small bodies of protoplasm which are distinguished from protoplasm in general

by their having assumed an individual structure. These little bodies, which in the vegetables are called *leucites*, have a granular and reticulate structure; they are impregnated with a coloring substance, at times green, at times yellow, and at times brown, as the case may be; in fact, several coloring substances are present, which, by intermixture in different proportions, form colors of many varieties. The best known, after green chlorophyll, is yellow chlorophyll or *diatomin*. The latter coloring substance can be absorbed by alcohol.

The Euglenoididæ, the Chlamydomonadidæ, and the Volvocinæ exhibit enormous chromatophores. In the case of the Euglenæ, the chromatophores are formed of small discoid plates; they are situated directly under the cuticle, so that the light can act upon them (see fig. 4\*). In certain species of Flagellata, they are exhibited under the cuticle in the form of two large plates which envelop the protoplasm like a cuirass formed of two pieces. The Chlamydomonadidæ and the Volvocinæ have green chromatophores, disc-shaped, and very small.

In the centre of the chromatophore a small bright space is observed which was formerly thought to be filled with chlorophyll; in reality, it is a minute solid globule which shows an extremely close analogy with the substance composing nuclei, or nuclein. It exhibits the same chemical reactions; it actively absorbs coloring matter and grows extremely brilliant when treated with acids. Schmitz gives this little body the name of pyrenoid (from *πυρρον*, nucleus). It is around the pyrenoid, and probably through its action, that starch forms; it is deposited in grains or re-unites in a ring about the pyrenoid, a fact easily ascertained by coloring them with iodine.

Production of starch has also been observed in the colorless Flagellates, as for instance in the *Polytoma uvella*. These latter do not have chromatophores, but Künstler, and after him Fisch, has noticed that every grain of starch is attached to a small mass of colorless protoplasm which is the focus of formation for the grains. This is precisely what happens in vegetable organisms where colorless starch-leucites are found. This little mass of protoplasm always faces the hilum of the starch-grain.

\* Translation copyrighted.

\* For figure 4, see No. 50, page 1139, of THE OPEN COURT.



As the function of the chromatophores is exercised only when subjected to the influence of light, it follows that green Micro-organisms must have light in order to nourish themselves.

A quite remarkable fact may be adduced in this connection. On examining the kingdom of Protozoans as a whole, it will be seen that a striking coincidence exists between the presence of the eye and the presence of the chlorophyll pigment. Organisms having an ocular spot are in most cases provided with the chlorophyll pigment, or, in other words, nourish themselves as plants do, by generating starch through the action of light. This fact proves that sensibility to light is in some manner dependent upon the chlorophyll function. If Flagellates possessing chromatophores, that is organs generating starch, have ocular spots at the same time, it is because these rudimentary eyes enable them to find their way towards the light, which is the necessary agent of chlorophyll action. Accordingly, all Micro-organisms having eyes nourish themselves as plants do. In their case, the object of the eye is to direct the performance of a vegetable function.

It is interesting to note in this connection that the Euglenæ might nourish themselves as animals do, for they have a mouth and a digestive apparatus. The buccal, or oral, aperture opens in the anterior end at the base of the flagellum, and is connected with a short gullet or esophagus (see fig. 6,\* the mouth and gullet of an Euglena). Nevertheless, the Euglena is never seen using its mouth for swallowing alimentary particles. A quite curious problem is involved here. If it is true, as has been claimed, that it is the function that makes the organ, how do we explain the existence and especially the genesis of this digestive apparatus which performs no function?

It is the presence of chromatophores that prevents certain Flagellates from feeding like animals; so much so in fact, that the digestive apparatus performs its functions in Flagellates which have no chromatophores and are not provided with chlorophyll pigment, an instance of which is seen in the *Peranema*. The *Peranema* is, further, an exceedingly voracious animal. We must note also that the *Peranema* does not exhibit ocular spots like the green Euglena; and moreover, it has no need of such, since it does not have to seek the light to generate starch. All these phenomena are interdependent.

The influence exerted by light upon the green organisms of both kingdoms has been ascertained by different scientists. Light at a certain degree of intensity attracts them, and at a greater degree, repels them. Some years ago M. Strassburger conducted a series of connected experiments upon the

movements of green spores towards light. It was observed, here, that the grains of pigment in the interior of the cellules, when under the influence of solar radiations, executed movements and set outwards in all directions.

2. *Nutrition by endosmosis, or saprophytic.* The organism nourishes itself by absorbing through the whole surface of its body liquids containing the products of vegetable or animal decomposition. Saprophytic beings are found in putrid waters or in infusions. This manner of nutrition may be considered, from the point of view which now engages us, as the most simple of all; it probably allows of a search for food, but it is certain that no movements are involved which are designed to draw the food into any possible digestive apparatus.

3. There is now a last mode of nutrition, of which we shall treat in minute detail; namely, *animal nutrition*, where the Micro-organism seizes solid alimentary particles and nourishes itself after the fashion of an animal, whether it be by means of a permanent mouth or by means of an adventitious one, improvised at the moment of need. This manner of nutrition is the process employed by higher animals. Among the lower organisms, it is met with in most of the Infusoria, in the Sarcodines, in many of the Mastigophores, and in others. Respecting the Micro-organisms belonging to the vegetable kingdom, we find nutrition by endosmosis and chlorophyll nutrition; the Protophytes never possess a mouth and never absorb solid foods.

Animal nutrition requires very remarkable psychological faculties in the organism practicing it. These manifestations of psychic life, the progressive complexity of which we intend to trace in starting from the simplest protozoic forms and arriving at the higher—prove that these animalcula are endowed with memory and volition. We shall group our remarks under the two following heads:

- a. The choice of food; and
- b. The movements necessary for the prehension of food.

The Micro-organisms do not nourish themselves indiscriminately, nor do they feed blindly upon every substance that chances in their way. Also, when they ingest food through some point or other of their bodies, they understand perfectly how to make a choice of the particles they wish to absorb. This choice is sometimes quite well defined, for there are species which feed exclusively upon particular foods. Thus, there are herbivorous Infusoria and carnivorous Infusoria. Among the herbivorous ones may be classed the chilo-dons which feed upon small Algæ, Diatomaceæ, and Oscillaria. The paramecia live principally upon Bacteria. The Leucophrys is a specimen of the carnivorous.

\* For figure 6, see No. 51, page 1151, of THE OPEN COURT.



rous class; it devours even the smaller animals of its own kind. The *Cyrtostomum leucas* eats everything, as do the Rotifers.

Though the fact of an exercise of choice in taking food is settled beyond question, yet the interpretation of this phenomenon is a matter of much uncertainty. Some writers, as Charlton Bastian for instance, explain this choice of food as an affinity of chemical composition existing between the organism and the nutriment. This idea does not lead to anything. Others compare the discrimination made by the Proto-organism between objects presented to it, to the action of a magnet which in some way selects particles of iron that have been mixed with particles of other substances. The latter interpretation is an evidence of the tendency evinced by some naturalists, of endeavoring to identify the attributes of living organic matter with the physico-chemical properties of the mineral kingdom.

In our opinion, the only question demanding consideration is whether the choice of food, in the case of Proto-organisms, does or does not result from a psychical operation, similar, for example, to that which takes place in higher organisms. We have received a noteworthy communication from M. E. Maupas, upon this subject, which tends to establish that the choice of food is not the result of individual taste in the Micro-organisms, but is determined by the organic structure of their buccal apparatus which does not allow them to receive other forms of nutriment.

We must closely examine, therefore, the mechanism for prehension of food.

The following is what occurs when the Amœba, in its rampant course, happens to meet a foreign body. In the first place, if the foreign particle is not a nutritive substance, if it be gravel for instance, the amœba does not ingest it; it thrusts it back with its pseudopodia. This little performance is very significant; for it proves, as we have already said, that this microscopic cellule in some manner or other knows how to choose and distinguish alimentary substances from inert particles of sand. If the foreign substance can serve as nutriment, the Amœba engulfs it by a very simple process. Under the influence of the irritation caused by the foreign particle, the soft and viscous protoplasm of the Amœba projects itself forwards and spreads about the alimentary particle somewhat as an ocean-wave curves and breaks upon the beach; to carry out the simile that so well represents the process, this wave of protoplasm retreats, carrying with it the foreign body which it has encompassed. It is in this manner that the food is enveloped and introduced into the protoplasm; there it is digested and assimilated, disappearing slowly.

There are cellules found in the inner intestinal

walls of lower animals which effect the prehension of solid foods in the same manner as the Amœba cellule: they are called phagocytes.

This mode of prehension is beyond contradiction the most simple imaginable; for the prehensile organ is not as yet differentiated. Every part of the protoplasm may be made to serve as a digestive cavity in enveloping the foreign substance.

From the special standpoint of prehension of food, we may place the *Actinophrys sol* above the Amœba. This animalcule is a small microscopic Illeizolarian abounding in fresh-water ooze. It casts out long, slender, filamentous pseudopodia from every part of its body. When its prey or any alimentary substance gets into the midst of this mass of filaments, the filament affected quickly draws back, carrying the nutritive matter with it towards the body proper of the Actinophrys. In other instances, the filaments, anastomosing themselves, form a sort of envelope about the prey. At the instant the substance comes within a short distance of the cellule, a part of the protoplasm composing the mass projects itself forwards, and encompasses the food, which is carried back and enveloped in the midst of the protoplasm by a process analogous to that seen in Amœba.

In the case of the Actinophrys any part of the body could serve as a way of entry for food, that is to say, could act as the part of a mouth. To use the expression of W. Saville Kent, it is a *pantostomate* being. In other species of higher organization, this mode of alimentation is rendered impossible by the cuticle which encompasses the body; the formation of a cuticle impervious to solid foods creates the necessity of a buccal orifice through which food may enter into the interior of the protoplasm.

A curious graduation in these phenomena is noticed here. Thus there are organisms destitute of a permanent and pre-existing mouth; their mouth is improvised as the occasion demands, is adventitious, so to say, and the reason that these organisms are ranked higher than the preceding ones, is that the mouth is invariably formed in the same place.

In this connection we may examine a small flagellate Infusory which abounds in impure waters, the *Monas vulgaris*. It carries a long flagellum attached to its anterior extremity, which when not in motion, is coiled up against the body. At the base of the flagellum the protoplasm projects a pellucid substance in the shape of a lip. This protuberance is hollow, containing a vacuole filled with liquid. Cienkowsky has described how these different organs act. The Bacteria and Micrococcus, which constitute the food of the *Monas*, are pulled into the latter's neighborhood by strokes of the flagellum; at that instant, the animal becomes conscious of the proximity of these other



bodies, for the protuberance which lies at the base of the flagellum extends towards the corpuscle, envelops it in its own substance, and pulls it back into the interior of the Monad's body. Bütschli has made an analogous observation with the *Oikomonas termo*.

The prehension of food comprehends, here, three phases, in two of which the organism manifests psychical activity: *first*, attraction of food by means of the flagellum; *second*, formation of the vesicle which extends towards and envelops the food, when the latter has come near; *third*, absorption of the food.

The Acinetæ are organisms that move about very little; they frequently remain fixed to a pedicle their whole life long. They have no cilia, but exhibit radiating prolongations, more or less numerous, and sparse or grouped in tufts, as the case may be. These filaments are suckers, provided at the end with a small air-hole. When a thoughtless Infusory swims into the territory of an Acineta, the latter arrests it by means of its stout filaments and fastens upon the former's body the cup-shaped extremities of its suckers, which make a vacuum. The protoplasm of the Ciliate thus captured, slips slowly through the suckers as through tubes, and is gathered together in the interior of the Acineta in the form of small drops. In the Acinetæ, accordingly, particular organs are adapted to the prehension and absorption of food. Corresponding to the greater complexity of physical action, the psychical process necessary for the act of prehension has likewise become more complicated than is the case with the Amœba. The Acineta is obliged to *direct* its sucker towards the Infusory which is within its reach, and consequently the animal is obliged to determine the position of its prey.

There are Acinetidæ that exhibit prehensile organs more perfect than those just noticed. Such are the *Hemiphrys*. They have both sucker tentacles and prehensile tentacles. The latter are filaments which the animal throws about its victim like a lasso, thus enveloping and rendering it motionless, while it proceeds to feed upon it by means of its suctorial apparatus.

Now, do these Acinetidæ show any preference of choice among the Infusoria that chance to fall within reach of their tentacles? M. Maupas, who has made an especial study of these organisms had at first admitted this preference in choice. But he afterwards rejected the notion. In 1885, he writes us: "I find quite another explanation of the impunity with which the *Coleps hirtus* can throw itself upon the terrible suckers of the *Podophrys fixa*. The stout shell with which this little Infusory is enveloped, serves it as a shield and guards it from the deadly grasp of the Acinetidæ. The Acinetidæ do not seize the Coleps because

of any dislike of the latter, but because they are unable to seize them, and their inability results from the peculiar structure of the Coleps' tegumentary envelope. The Paramecia which also escape unscathed, are similarly provided with a tegument of high resisting power, which serves them as a protection in this contingency. The *Stylonichia histrio*, like all other Stylonichia, has a very soft tegumentary envelope. They are accordingly seized and devoured by the Acinetidæ without difficulty. The detailed knowledge of the differences of structure in the tegumentary envelopes has caused me to abandon the idea of a preference or dislike in the choice of those victims which serve as food for the Acinetidæ. Of the prey that passes by, they catch what they can and not what they want to."

In a large number of species the prehension of food is preceded by another stage, the search for food, and in the case of living prey, by its capture. We shall not investigate these phenomena among all the Protozoa, but shall direct our attention especially to the ciliated Infusoria. Their habits are a remarkable study. If a drop of water containing Infusoria be placed under the microscope, organisms are seen swimming rapidly about and traversing the liquid medium in which they are in every direction. Their movements are not simple; the Infusory guides itself while swimming about; it avoids obstacles; often it undertakes to force them aside; its movements seem to be designed to effect an end, which in most instances is the search for food; it approaches certain particles suspended in the liquid, it feels them with its cilia, it goes away and returns, all the while describing a zig-zag course similar to the paths of captive fish in aquariums; this latter comparison naturally occurs to the mind. In short, the act of locomotion as seen in detached Infusoria, exhibits all the marks of voluntary movement.

It might also be mentioned that every species manifests its personality in its mode of locomotion. Thus, as a rule, the *Actinotricha saltans* when placed in a preparation where it finds itself at ease, remains for a few moments perfectly immovable. Then, of a sudden, it dashes forward with the rapidity of lightning and disappears from the field of vision. For a time it darts about to the right and to the left, and then once more assumes its state of immobility. It can move with the greatest agility through masses of *débris*, in the midst of which, bending and twisting, it slips about with wonderful nimbleness. The *Lagnus crassicolis*, on the other hand, moves along at a pace quite constant and uniform, neither slow nor rapid. It winds about among algæ and fragmentary particles, in search of its prey. The *Peritromus Emma* moves slowly. It runs lazily over the Algæ, where it seeks



its nutriment, and does not stray from them to venture into the open water.

(To be continued.)

#### DRUMMOND'S NATURAL LAW IN THE SPIRITUAL WORLD.

BY JAMES HERBIN.

This book has created a sensation in certain orthodox circles, and gained quite a popularity, because, when superficially considered, it has the appearance of substantiating certain Christian dogmas by scientific analogies.

There is enough philosophy and science in it to confuse the many readers; and by people with an orthodox bias, it is pointed to with pride and triumph, as unquestionably settling vexed questions about which scholars have expended a great amount of thought. People who are not familiar with the writings of Herbert Spencer, Tyndall, Huxley and Darwin, would be apt to be misled about opinions held and unqualifiedly expressed by these eminent authors. Drummond is imbued with sufficient science and metaphysical philosophy to carry him dangerously near the point of forsaking the whole orthodox structure; and he will have to stop where he now is and allow his iron-clad dogmas to keep a firm hold on his mind, or the result will be disastrous to his orthodox notions.

The Platonic thought that "Ideas are the only true existences," and the teachings of Fichte and Schopenhauer, that matter is an illusion or only a state of consciousness; that all objects of which we can form any conception are not real, but exist only for the subject, and in the subject, cannot be indulged in and endorsed by any one who believes and teaches a literal sacrifice, and that immortal life is only possible because of that act.

These statements are found on the last page of the introduction, which the author did well to advise the general reader to avoid.

In the fore part of the introduction he asserts that Theology was imperfect when it was formed, and that "it must pass through the necessary stages of progress, like any other science." Of course, if it was perfect at its formation, it could not progress; but it is difficult to understand how a system that sacrificed the only Son of the Most High, to save a dying world, and under the direct supervision and sanction of God Himself, could be so imperfectly constructed as to need to progress like a science.

On page 39 he asks: "What, then, has Science done to make Theology tremble?" The Science of Bruno made Theology tremble, and Theology burned Bruno at the stake. The Science of Copernicus and Galileo made Theology tremble, and it suppressed the one and put the other to the tortures of the Inquisition, to sustain its untenable position, which the light of advancing knowledge forced it finally to abandon. The Theology of ancient

Greece trembled at the light that shone from Socrates, and Theology made him drink hemlock. History is full of examples. How can any one, in the light of the knowledge of the Nineteenth Century, ask such a question?

Page 40. Then the inspiration of Revelation was left obscure, and it did wander benighted down through the Dark Ages, causing persecution, bigotry, human suffering, fierce wars of extermination, bloodshed and cruelty, and it is only within the last two hundred years that the light of Science has come in to correct these terrible errors, and set Theology right, which it has not yet succeeded in doing.

Drummond in his Biogenesis claims to substantiate the theological dogma of regeneration by an analogy in biology.

Regeneration, according to Drummond (and probably orthodoxy would accept his definition if its conclusions were not pressed home too strongly), means that only through Christ can human beings attain to immortality. He claims, and fairly, that the foundation of the whole Christian church, Catholic and Protestant, and all of the various sects comprising these two denominations, rests upon this dogma as their corner-stone; and if it were removed, the whole fabric would fall into ruin. The whole matter is stated in one terse sentence: "Except a man be born of water and of the Spirit he cannot enter the kingdom of God."

There is no mistaking the meaning of that sentence. Unless you are regenerated, and in a certain way, you can have no claim upon, and can never expect to attain to, eternal life. No matter how good you are; no matter how spiritually minded you may be, or how self-sacrificing, pure, charitable and forgiving a life you may lead, it is absolutely and unconditionally necessary that you be regenerated, or you will be eternally punished. That can hardly follow, either, according to Drummond, for annihilation is a necessary corollary of his ideas.

Not taking evolution into account, but accepting literally the Mosaic statement that the earth has endured only six thousand years, how many untold millions of wretched human beings have been swept off into annihilation or everlasting torment. The author admits that hitherto there has been no reason for believing that uncomfortable doctrine excepting that the Scripture says so. He admits that the want of any rational defense of the doctrine has been keenly felt, and that they have been obliged, heretofore, to rely on the *ipse dixit* of Revelation. "Man has, or may have," says Drummond, "two lives; a natural life and a spiritual life." "The natural life is the existence that all organized beings or things possess on earth. It comes from the ancestors of the living organism, they may transmit to their offspring; but the life of the individual organism dies when the corporeal structure is finally disintegrated." The spir-



itual life is a direct gift of God, and is only obtained by acquiring a certain mental state and performing certain material conditions.

"If you believe certain dogmas, and perform certain rites, a new life, which is permanent and never-ending, will be given you, and you will dwell in Paradise with the sons of God forever."

To prove this by scientific analogy he makes the following statement: "There is no spontaneous generation of life. The passage from the mineral world to the plant or animal world is hermetically sealed on the mineral side. No mineral structures can lift themselves up by any inherent power of their own and become organic. \* The power of the analogy for which we are laying the foundations to seize and impress the mind, depends on the vividness with which one realizes the gulf which nature places between the living and the dead." And, he says, "there is also such a barrier in the spiritual spheres." "The passage from the natural world to the spiritual world," or from natural life to spiritual life, "is hermetically sealed on the natural side. The door from the inorganic to the organic is shut, no mineral can open it; the door from the natural to the spiritual is shut, and no man can open it." Now, so far as his spiritual world is concerned, that being the creature of his own imagination, or the offspring of his dogmas, he can erect as many barriers as he pleases, consistent with his theology; but his barriers between the organic and inorganic kingdoms are as baseless as the fabric of a vision, and have no foundation in science. He admits that his theology is imperfect. The position that he must occupy is this: When inorganic substances become organized, when they become integral parts of organized bodies, they are alive; they are changed by the life forces that govern them, and become themselves living structures. In reality, matter is never alive; it is always dead, and always will be; it needs no barriers, natural nor artificial, to keep it in that state. This is another natural law with which Drummond has not become acquainted.

The chemical composition of bioplasm is more complex than any inorganic substance, but bioplasm is still a compound of molecules of oxygen, hydrogen, nitrogen and carbon. The formation of the molecules into a complex compound does not endow one molecule with life; and one molecule represents the entire mass of the structure. The life forces build up and organize the inert atoms, use them for their own purposes as they need them; they come into the organism inert atoms only as they are acted upon, and they are pushed out of the organism the same inert atoms that they were when taken in. Matter will never know that it is "touched," neither before nor after "bioplasm has done its gracious work." It being compelled by life forces to serve them, does not change it nor give it consciousness. When my friend takes crystals of chloride of sodium with his dinner, and

it helps build up his corporeal structures, it may be allowed by his life forces to remain chloride of sodium, or it may be decomposed into atoms of the original elements, chlorine and sodium, of which it is formed, undergo a hundred transformations, difficult to trace, and then, in a few hours or days, as is always the case, be thrown off from the body, never for a moment having possessed consciousness nor vitality, but having been used by both.

What a complicated and wonderful structure is the human form! When controlled by life it is certainly "noble in reason, infinite in faculties, and God-like in its attributes;" but in a moment all these qualities disappear, and there lies your dead matter, the atoms of which are just as much alive now as they were when it was bearing itself aloft in the grandeur of its beauty and its activity. The molecules of iron that help to form its structure, are the same now as they were when the blood was pulsating under the temples, and the same as they will be next week when they help to form a bit of rusty scrap-iron. The molecules of oxygen are as when they were helping the expressive eye to cast bright and meaning glances, or as they will be when they have floated off, and are combining with hydrogen and carbon, in one of a thousand lights which helps to illuminate a palace.

The molecules of dead matter which to-day form our bodies, were, last summer, helping to form the waving grain on the hillside, and becoming integral parts of the green and tender herbage that was cropped by the oxen there grazing, and which have since through the channels of the mills and butcher shops, been placed on our tables to serve for dinners, and when eaten, to supply the place of other molecules which are being constantly thrown off from the system through destructive metamorphosis.

And every molecule of the elementary substances of which our bodies are formed to-day, will next summer again be undergoing the same transformations. And every one of these molecules belongs to the inorganic kingdom. How foolish to talk about barriers and analogies when every molecule in the domain of nature belongs to the organic to-day, and to the inorganic to-morrow. Advancing science has formulated with great distinctness what constitutes matter. The division of matter into organic and inorganic is arbitrary and unscientific, because it changes from one form to the other so quickly and easily that no barriers can keep them apart. The molecules of oxygen floating around me as I write, are inorganic. The burning lamp-flame catches some of them, and, quicker than the conjurer's magic transforms them into carbonic acid or water, as they happen to unite with the carbon or hydrogen that constitutes the vapor of the oil, and they are inorganic still. I inflate my lungs at the same moment,—catching some of the same crowd, and as quickly as in the other case, they are integral parts of my blood



globules, and are coursing in red life currents through my arteries, and belong to the organic kingdom. All matter is constantly in motion, and is as changing in its restless activity as the surface of the sea. Science, through chemistry, has enumerated all the elementary substances, marked out their combining power with one another, and tells us how, in measured numbers, every compound in nature is formed. We also have a very comprehensive idea of the forces of nature and the laws that govern those forces. One serious blunder that Drummond has made, is in confounding the laws and forces with one another.

The physical forces, motion, heat, light, electricity, chemical affinity, gravitation, vitality, etc., work in a regular and orderly way; the way in which they work comprises their laws. Gravitation is not a law, but a force. These forces act upon matter according to laws. The lower and more stable aggregations of molecules which constitute a double salt, are built up in just the same way in which the higher and less stable aggregations of molecules which constitute protoplasm, are built up. It is a commonplace of science that the physical forces are transformable into each other, and it is held by high authority that they are transformable into sensation, emotion and thought. That they are transformable into each other is an accepted fact, and that in the building up of highly complex organized structures some of the other forces are transformed into vitality is beyond question. How this is done is still a profound mystery, but no more profound a mystery than how aerial vibrations generate the sensation we call sound; or how, how gravitation holds the planets in their evenly balanced orbits around the sun.

#### RELIGION AND SCIENCE.

##### *A Résumé.*

For the benefit of a correspondent who is interested in the Theophilus discussion and has not seen the back numbers of THE OPEN COURT, we propose the following explanations and definitions:

The subjective basis of cognition is the sensation of the subject; while the objective basis is the existence or rather manifestation of Reality.

Truth is the conformity of cognition with reality, i. e., of our concepts with the things represented in our concepts.

Truth being a relation between subject and object appears to be relative in its nature. Absolute truth is a *contradictio in objecto*; it would imply cognition without a cognizing subject. At the same time it is obvious that an absolutely Unknowable is impossible; it would imply the existence of an object whose existence is not manifested, i. e., an object without reality.

Science is the search for truth.

The method of science is the economy of thought.—*Math.*

Knowledge is the possession of certain truths.

Knowledge is, so to say, the present stock or capital with which Science works. Science cannot exist without Knowledge. The

object of Science is not only to increase and enlarge Knowledge but also to purify the present stock of Knowledge from vagueness, errors, and misconceptions. Accordingly, Science may exist and has existed with little Knowledge; and much Knowledge can be found in many minds where Science is wanting.

Religion is man's aspiration to be in unison with the All.

The basis of all morality is religious. A moral educator or preacher may justly be asked, "On what authority dost thou justify thy precepts?" And he will tell us that his authority is not personal; he speaks in the name of universal order. Accordingly his authority is that of religion. If it were not so, all his good precepts would have no foundation; they would hover in the air like beautiful dreams that have no reality.

Morals is man's conduct in so far as it is in unison with the All.

Ethics is the Science of Morals which teaches man why he must, and how he can, regulate his conduct so as to be in unison with the All.

Religion has been defined differently in the columns of THE OPEN COURT, but all definitions that have been presented in editorial articles are in strict agreement. Mr. Hegeler defines Religion as "man's union with the All" (taking the definition from the Lutheran Catechism "Religion ist der Bund des Menschen mit Gott durch Gott," and replacing the Word God by the more comprehensive word THE ALL). The editor has defined Religion as "man's consciousness of his relation to the All", (No. 24); as "Das Allgefühl im Einzelnen," the All-feeling in the Individual, (see footnote page 965); as "man's conception of the world that serves him as a guiding-star through life," (page 1180). Monism has been explained as the recognition of the Oneness of All-existence; Religion, it is stated teaches that the individual is a part of the whole and has as such to conform to the cosmical laws of the All.

Religion (man's aspiration to be in unison with the All) has naturally produced many superstitious notions of the world, of its origin, and of its purpose. Similarly science (man's search for truth) has produced many errors or false notions of reality. But all the superstitions of religion do not prove that religion as such is an illusion and all the errors of science are no evidence that science as such is a sham. It is obvious that religion and science, as defined by THE OPEN COURT, complement each other. If religion and science do not agree, it is a certain sign that our conception of either the one or the other is wrong. The history of the human mind has been a constant conflict and reconciliation between religion and science. Their relation has repeatedly been disturbed and re-adjusted.

Monism affords a basis for their unison and opens a new vista of progress for both. [Editor.]

#### SONNET.

BY LOUIS BELROSE, JR.

Full often, when my way is long and lies  
Through busy streets in which the dazzling light  
Gleams from a thousand lamps until my sight  
Is all bedimmed, I raise my weary eyes  
Above and rest them on the tranquil skies:  
Rest them from little flames that flare and smite  
By gazing where the myriad suns of night  
Shine with a glow that calms and beautifies.  
Thus when the sounds of pain and strife and hate  
Assail mine ears and grieve and torture me,  
Leaving me, sick of life, to curse at fate,  
I raise my thoughts to regions that are free  
From earthly cares, and there I contemplate  
The silent working of Immensity.



## THE SOURCE OF POVERTY.

A REPLY BY WHEELBARROW TO MR. SOLOMON LEVI'S CRITICISM.

To the Editor of THE OPEN COURT:—

Thanks for allowing me to answer Mr. Levi's criticism. I like to meet a critic who frankly confesses that he comprehends the subject and that I do not. From such a critic I always expect instruction, and seldom get it.

Is Mr. Levi perfectly sure that he "comprehends" the case? His illustrations indicate that he does not. True, a physician finding his patient suffering from headache, indigestion, pains in the side, and cold feet, might wisely say, "These are not four diseases, but four symptoms of one disease," and on that theory he might properly prescribe a single remedy; but suppose four patients afflicted with different disorders, will he treat them all alike? This is more nearly like the case about which we are now holding a consultation, and Mr. Levi's instance does not fit. Society is composed of many persons, some of them healthy and some not. The sick patients have all sorts of disorders, and the cures must be as various as the causes of disease.

"Poverty," says Mr. Levi, "is the real disease"; and he would abolish it by levying a single tax on land. He can as easily remove it with a crowbar. Whatever poverty results from land monopoly will vanish when that monopoly shall cease to be; but the poverty caused by the land system is only a small portion of the aggregate wants and deprivations which go by the name of poverty. Poverty is a consequence, like sorrow, and like sorrow it comes from a thousand springs. The college of physicians was once confounded by a wise man who advised the faculty to abolish "sickness," instead of attacking diphtheria, measles, and fever. "Remove sickness, gentlemen!" he said, "and all the diseases will disappear."

A good many years ago, I lived on the western "frontier." Jerry Dodd was the only doctor in our village, and even he graduated in the blacksmith shop, where he picked up his medical education by physicking horses. Jerry had one infallible remedy for all diseases, from typhoid fever down to corns and bunions. He called it "lobely." It was the only medicine I ever took that would produce sea-sickness on land. No matter what ailed us, he always prescribed "lobely." I once had a painful felon on my thumb, and Jerry made me take a stiff dose of lobely, to remove, he said, "the poverty of the blood." So I am continually meeting with Jerry Dodds, who have a specific for the cure of all social and political ailments, a dose of "lobely" to remove all the poverty of the people.

I can hardly be civil to the doctrine that sobriety and economy reduce wages; but as I used to believe it myself, I will treat it courteously. Will Mr. Levi give us one instance in the United States where sobriety and economy had any such effect? When the temperance movement was spreading among the workmen of England, the brewers and publicans used to employ talkers to go among us and explain that the whole scheme was gotten up by the masters to lower wages, and that whenever it should become evident that we could do without beer, the value of the beer we used to drink would be deducted from our wages. I believed all that for a long time, but at last I noticed that when a man got his wages raised, or was promoted, he was in almost every case a teetotaler. As soon as my eyes were directed towards the actual facts, I saw in a moment that not only was the doctrine false, but that the reverse of it was true. It is amazing that this mischievous error should be revived in the United States!

When and where did Col. Ingersoll say that "the bankbook of a mechanic is a certificate that wages are too high?" Col. Ingersoll has said many eloquently foolish things, but I do not believe he ever said anything so foolish as that. There must be a mistake about the quotation. As to the kindred sentiment, that "It is not men we must try to improve; it is the conditions that make men

what they are that must be altered," I repeat that it has been for ages an obstacle to the progress of mankind. It gives us a cowardly excuse for laziness. It enables us to shift our vices and mistakes from ourselves to our "conditions." It encourages us to shirk our duty, and to desert the moral work set out for us to do. We must try to improve men and their conditions too. The former is the more important action, because improved men will improve conditions long before improved conditions will improve men. I do not think it well to place these two reforms in opposition to each other or in contrast. They should march along step by step together, like two soldiers of the same file.

"A certain man went down from Jerusalem to Jericho, and fell among thieves, which stripped him of his raiment, and wounded him, and departed, leaving him half dead." A priest and a Levite came along, both of them wholesale reformers, and they said, "To help this man would be beneath our dignity; we are not in the retail business. Let us alter the 'conditions' that produce thieves, and highway robbery will cease." Then came a Samaritan and said, "I will gladly assist you to reform society by wholesale, but while we are doing it, I do not think it beneath me to do good in a retail way." So he went to the injured man, "and bound up his wounds, pouring in oil and wine; and set him on his own beast, and brought him to an inn, and took care of him." The moral of this is, work for the removal of suffering wherever you find it. There are many wrongs in our social and political systems, each one producing its own share of poverty. By removing each separate wrong we remove its quota of evil; and the man who thinks he has some stuff in a bottle that will cure everything, is enthusiastically wrong. It is a mistake that a single tax on land will remove the poverty caused by drunkenness, idleness, rheumatism, or falling among thieves. The man who will do nothing to remove our social evils, but levy a single tax on land, simply leaves the victim of injustice to die on the Jericho road.

I have no excuses to offer for the wickedness of the "Coal Barons," who lock up nature's coal cellars and turn the miners out. If I had my way there would not be any coal barons, nor any other "barons" for that matter; but without any further dwelling upon that, I proceed to answer Mr. Levi's question concerning the locked out miners. "Does not Wheelbarrow see that the strictest economy, the temperance of a St. John can be of no avail to those unfortunate men?" Well, no, I do not see any such thing. It appears to me that under the circumstances temperance and economy must be of great avail. It is easy to say that they have been deprived of "the right to the use of the earth," and I rather think myself that they ought to have the coal mines; at least I wish they had them, but would they not be coal barons then? And suppose I should go there with my shovel, pickaxe, and wheelbarrow, and begin digging coal for a living, how long would it take them to fire me out of the mine? And if I should tell them that I had a "right to the use of the earth," they would say, "Yes, but not to that part of the earth which your neighbor has a right to the use of." And how could I answer that? Phil. Fogarty, an Irish friend of mine, was president of the land league, and one day he told me that he had hired a man to kill landlords.

"What do you pay him for the job?"

"I give him a hundred and sixty acres of land for every landlord he kills."

"What if he kill ten landlords?"

"Then he will get sixteen hundred acres of land."

"Why, that will make him a landlord; will it not?"

"Yes, but I have a man ready to kill him then."

While Mr. Levi is abolishing the "conditions" which produce "coal barons," let him be careful that he substitute not some new "conditions" that will create new "barons."

All poverty will not be removed by sobriety and thrift, but



they will abolish that part of it which has been caused by improvidence and drink. I think these propositions are self-evident, yet Mr. Levi thinks the result of them would be to reduce us "to a mere animal existence." The man who believes that self-discipline, industry, economy, temperance, will reduce those who practice them to "a mere animal existence" probably attaches no definite meaning to such phrases as, "It is not restriction, it is freedom that labor needs?" "Throw open natural opportunities." "Put all men on equal footing in regard to natural bounties by taxing to the fullest extent and for the benefit of the whole community that fund which has been created by the whole community." And so on for several columns. May I ask, "What fund? and why tax it at all? How can taxing a fund created by the whole community be for the benefit of the whole community? All that magniloquence reminds us of the "red-faced man" described by Dickens, who used to stun the company with gong-phrases that might mean anything or nothing. "What's freedom?" said the red-faced man, "Not a standing army. What's a standing army? Not freedom. What's general happiness? Not universal misery. Liberty aint the window tax, is it? Society is bending beneath the yoke of an insolent and factious oligarchy; bowed down by the domination of cruel laws; groaning beneath tyranny and oppression on every hand, at every side, and in every corner."

The man who thinks that there is a "sole cause" for all the poverty, vice, misery, errors and mistakes that abound in society, may call himself an "economist," and a "student of natural law," but he has not been much of a "student" if he has not learned that poverty occasioned by drunkenness, gambling, or even by business imprudence, is not to be removed by levying a tax on land. It is quite in harmony with "natural law" that such an "economist" should bug the delusion that "nothing short of rebuilding our whole social structure will be of any real or lasting benefit to the masses." Why so? Is there any need for such a wholesale change? "Nothing will ever cure that smoky chimney," said the old lady, "except rebuilding the whole house." She had studied just enough "natural law" not to know that rebuilding the chimney might answer every purpose. The rebuilding of "our whole social structure" would be the most tremendous feat of engineering ever done by mortal man since he attempted to scale heaven from the tall towers of Babel; yet there are architects in every town who can furnish in a moment's notice the plans and specifications by which the rebuilding may be easily and successfully done. And the world is distracted by their confusion of tongues.

Familiar and friendly as the clown in the circus, our old acquaintance the "iron law of wages" steps into the arena and says, "Here we are again." Close behind him follows the ancient antithesis known as "the millionaire and tramp, the one the complement of the other." Those veteran bits of rhetoric have done good service; they have earned retirement and a pension. Let them go. The tramp is not the complement of the millionaire nor the millionaire of the tramp. They are distinct social phenomena, the one independent of the other, the tramp a little more independent sometimes than the millionaire. There is a good deal of maudlin sorrow and stumpy pathos wasted upon one specimen of the tramp, and much undeserved reproach upon the other. Rarely is the tramp a sign of want, or even of a scarcity of work. As a picturesque victim of social oppression he is a healthy, rollicking fraud. The stout young fellow who goes on tramp for the gypsy fun of it, and because he would rather beg than work is a despicable creature who ought to be kept on the stone pile; but the laborer who prefers to walk from one part of the country to another, rather than ride, may be as respectable as the man in the palace-car. Neither the one tramp nor the other is chargeable to the millionaire. In this country the tramp is not the product of poverty but of riches. It is not scarcity but abundance that causes the tramp

to blossom in the United States. The fact that a man can get "a meal's vittles" for nothing, almost anywhere in America has developed that contemptible jolly mendicant known as the tramp. As a political argument he is an impostor.

It seems to me that the "student of natural law" utters a contradiction when he says in one paragraph that the millionaire and the tramp "are but creatures of the same natural forces;" and then tells us in another paragraph that "nature is not concerned with the making of millionaires and paupers anymore than with the making of Jews and Catholics." I think they are all the products of artificial forces; although, as to the tramp, nature has had a good deal to do with producing him. Any man who has had much acquaintance with nature in the woods and fields knows the artful way by which she seduces boys from the schoolhouse and men from the shop. The man who has never been a tramp; I don't mean a mendicant, but the tramp who pays his way; the man who has never been a tramp knows not what luxury is. He has never quaffed the wine of life from the chalice of the Gods. He has never felt the holy spirit pouring down upon him from the sun. Health glows in the brown face of the tramp, and nature makes for him a pic-nic and a holiday. Do you like pictures? Tramp through Old England in the spring, or New England in the fall, and roll past you with your own feet a landscape of 20, 30, 40 miles a day. How the glories of the Louvre and the Vatican pale before the groupings and the colorings you will see. In his gilt-edged poetry the millionaire reads about "the music of the spheres," but the tramp actually hears it in that symphony of praise wherein all the harmonies of nature sing together. He drinks a gallon of air at a draught, and consumption and dyspepsia know him not. A pleasant stroll that I can recommend for anybody needing a tonic is a twenty mile-a-day walk across the "pleasant land of France," say from Dieppe, straight away to Strasburg. Let us not waste any more tears on the tramp, nor any more cant.

And this reminds me of "The iron law of wages," which has been imported into this debate. It gives to the argument a learned look, as cap and gown give an air of scholarship to an Oxford student. "The iron law of wages" is an old myth which used to vex and puzzle me, but like some other ghosts it fled when I challenged it. I then discovered that it was unreal, like "The stuff that dreams are made of." It has no more substance than the wooden rule of three, or the leather law of interest. If a figure of speech is needed let us call the law of wages india-rubber, which it resembles. It is elastic; it swells and shrinks, and stretches and bends according to the pressure and resistance of the time. It changes according to the "conditions." Time, place, and circumstance; crops, climate, capital; product, strength, skill, character, and a thousand other forces control and modify the law of wages, if there is any law of wages other than the law of price for groceries, the law of getting the most sugar and the most labor for the least money?

I once held the position of deputy bricklayer. I carried the bricks up in a hod, while my principal set them in the wall. He was a labor-orator and a good one. Did you ever hear a sailor box the compass? Well, that's the way my principal used to rattle off the jargon of the "dismal science." The pathetic way in which he would explain the "iron law of wages," used to make us all so thirsty from shedding tears, that we had to call for beer. One day we had this dialogue:

"Jem," I said, "what is the iron law of wages?"

"O, it's the law which allows a working man just wages enough to purchase the necessities of life, and keep his muscles in working order."

"Does it cost any more to keep your muscles in working order than mine?"

"No."



"Then how comes it that you get three dollars a day, and I only get a dollar and a quarter?"

"Well, of course, you know, skilled labor is more valuable than unskilled labor in the market."

"Then the value of the article in the market has something to do with the price of it?"

"Certainly."

"And there is no iron law?"

"Yes, there is; for the lowest forms of labor, but not for the higher."

"This," I said, "amounts to a confession that there is no 'iron law of wages.'"

Mr. Levi hopes and expects too much from the land scheme of Henry George. That scheme was lifted into popularity by the eloquence of its advocate as much as by its own merits, and in spite of its mistakes. The moral defect of it is that it makes taxation a principle. It elevates taxes to the rank of blessings. Taxes always deprive society of some comforts; they never can increase its wealth, any more than levying meases upon a special few can increase the health of all. The paradox is visible in Mr. Levi's proposal to abolish poverty "by abolishing all taxation upon the products of labor, and putting it upon land values, taxing them to the last penny." What are land values but the "products of labor." And why confiscate land values "to the last penny?" The only revenue that any government can obtain by taxing land values must come from the values which are the product of labor. The speculative land value of a vacant lot, the anticipated profits of an uncultivated "quarter section," will yield nothing to the tax-gatherer, if assessed to the "last penny" of its prospective worth. In this case the land and the lot will simply be forfeited by the owner to the State, and if conferred upon a new owner they will not yield the first penny in taxes or in profits until they have been made productive by the magic touch of labor. There is much in Mr. George's land scheme that appears to me to be correct, and some of it I advocated in a crude way before Mr. George was known as an author. I think there is a good deal of social relief in the principle of the single tax on land, as being the least impediment to labor; but I do not see how that relief can ever be greater than the sum total of the taxes required for the strict necessities of government. Mr. George is not to be held responsible for the views of his disciples, but many of them believe that under his plan every man who owns lands and lots is to be fined for the offense "to the last penny" of their value.

The personal questions addressed to me in Mr. Levi's last paragraph must be answered. *First*, "Does Wheelbarrow go down below the surface and wrestle with evil in the place of its origin?" To that I answer, yes; as well as I can; but I see a thousand origins of evil, and to the best of my ability I wrestle with them all. I give such help as I can to every reformer, and to every reform. I complain that progress is retarded because reformers will not assist each other. "A single tax on land is the only way to relieve poverty," says one. "Wrong," says another, "State Socialism is the only cure for poverty." "Both wrong," says a third, "Money reform is the one thing useful." "All wrong," says a fourth, "Prohibition of the liquor traffic will remove all poverty," and so on, until the relief of individual misery is looked upon as very unprofessional in a wholesale reformer. Whenever I see anything in any man's plan that I think will remove evil either by wholesale or by retail, I am his disciple.

*Second*, "Does Wheelbarrow intend to give labor back the right to the use of the earth?" To that I answer, yes; and when labor uses the earth, I would not tax its product as a punishment for using it.

Respectfully,

WHEELBARROW.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXIII.—Continued.

Now Mrs. Knips (who dwelt opposite to the actress) came running in to Madame Hummel one day with the linen still damp, and told her that on the previous evening a great basket of champagne had been taken to the actress's house, and that in the night the loud singing of a dissolute company had been heard over the whole street, and that young Doctor Hahn had been among them!

On Sunday the comedian had been invited to dinner at Mr. Hummel's, and one of his first anecdotes was concerning a jovial party which had taken place at the actress's. With the malice which is often to be found in fellow-artists towards each other, he added, "She has found a new admirer, the son of your neighbor over the way. Well! the father's money will at least come to the support of art." Mr. Hummel opened his eyes and shook his head, but only said, "So Fritz Hahn too has gone among the actors and become dissipated: he is the last one that I should have suspected of this."

Mrs. Hummel endeavored to bring to mind her recollections of the ball, and found in them a sorrowful confirmation of this, but Laura, who had been sitting very pale and silent, broke forth vehemently to the actor:

"I will not suffer you to speak of the Doctor in such a tone at our table. We are well enough acquainted with him to know that he is in conduct and principles a noble man. He is master of his own actions, and if he likes the lady and visits her at times, a third person has no right to say anything in the matter whatever. It is a malicious calumny to say that he goes there with any dishonorable intentions, and spends money that does not belong to him."

The comedian, through fright, got a crumb of bread in his wind-pipe, and burst out in the most violent fit of coughing that had ever seized him, but the mother, in excuse of their pleasant visitor, replied:

"You have sometimes felt yourself, that the conduct of the Doctor was not quite the thing."

"If I have said anything of the kind in foolish ill temper," cried Laura, "it was an injustice, and I am very sorry for it; I have only the excuse that I never meant it ill-naturedly. But from others I will hear no slanderous talk about our neighbor." She rose from table and left the room. The actor vindicated himself to the mother, but Mr. Hummel grasped his wine-glass and, peering after his daughter, said:

"On a gloomy day she is scarcely to be distinguished from me."

The Doctor was little troubled about his own mis-

\* Translation copyrighted.



deeds. He had paid a visit to his partner after the ball, the occasion on which he had been seen at the window. One of his school friends, now second tenor at the theatre, had come and arranged with the actress to have a little picnic on her approaching birthday, and Fritz had been invited to take part in it. It was a merry gathering, and the Doctor had found much entertainment among the light-winged birds of the stage, and had rejoiced with the benevolence of a wise man at the good tact which was visible amidst the easy style of their intercourse. There had also been much intelligent conversation in the course of the evening, and he went home with the impression that even for a person like himself it was good to be for once associated with these lively artists. He had endeavored that same evening, by a stratagem, to ascertain his unknown correspondent. When they were singing songs, and with lively grace reciting comic verses, he had produced the May-bug song and had begun to sing it:

"The May-bug sat on the hedge, brum, brum;  
The fly sat beneath him, hum, hum hum."

Some had joined in it; the lady in the mantle did not know the song, however, but only a similar one from an old *rôle*; and when the bass took up the melody from the Doctor, and in the following verses portrayed each of the birds as they entered by gestures and comic changes of the melody, the hostess laughed, and without any embarrassment undertook to learn the song, so that the Doctor again became very doubtful, and on returning home remained standing on the threshold and looked significantly at the house of Mr. Hummel. If any one had accurately investigated why, after this May-bug song, the Doctor became noisy and gay like the others, he would perhaps have discovered that the unembarrassed air of the actress had lifted a load from his heart.

But this helped him little with respect to the "brum" and "hum" of the neighbors. All Park Street had latterly accorded to their Fritz Hahn the highest respect; his picture had been placed among the serious men of learning in their albums, whom they daily contemplated and spoke of. Now strange features had appeared in the well-known face, and the street could not bear that one of their children should appear otherwise than he had been wont to do. Therefore there was much whispering and shaking of heads, and this came to the knowledge of Mr. and Mrs. Hahn, and, finally, to the Doctor. He laughed, but he did not feel quite at ease about it.

"Tannhäuser, noble knight and man,  
In Venus' wiles thou liest ensnared,  
While I, a wicked Pope Urban,  
To cause you shame and sorrow dared."

Thus did Laura lament in her room, but she concealed her heavy sorrow, and did not speak a word

concerning the danger of the Doctor, even to Ilse; and when the latter once slightly alluded to the new intimacy of their friend, Laura broke the thread of her embroidery, and said, while the blood rushed to her heart:

"Why should not the Doctor visit there? He is a young man for whom it is good to see different people; he stays too much in his room and with his parents. If I had been a man like him, I should long ago have tied up my bundle and gone out into the world, for our narrow field of active life weakens the energies and dwarfs the mind."

At the tea-table one of the company present turned the conversation on the actress, and shrugged his shoulders over her free manners. Laura felt what must be the Doctor's embarrassment; there sat poor Fritz, obliged to listen to the derogatory criticisms—his intimate acquaintances were silent, and looked significantly at him; his position was terrible, for every fool made use of the lady's unprotected position to show himself a Cato.

"I wonder," she said, "that gentlemen should so severely criticise the little freaks of an actress. A lady of that profession should be treated with great consideration, for she is deprived of all the protection and all the pleasure which we have in our families. I am convinced that she is a worthy and sensitive girl."

The Doctor looked thankfully at her and confirmed her opinion. He did not observe it, but it had happened as in his fairy-tale; Laura had bent down to his feet and picked up the pocket-handkerchief.

But she had still more to bear. The month of March began his theatrical pranks in the world; first from his grey clouds he had cast a veil of snow over the landscape; icicles hung from the roofs and white crystals from the trees, and the wild storm howled all around. Suddenly all was transformed. A mild south wind blew, the buds of the trees swelled, and the fresh green made its appearance in the meadow; the children ran about in the woods and carried home large bunches of spring flowers, and people, rejoicing in the change, passed in unceasing pilgrimage through the Park Street out into the sunshine.

Even Mr. Hummel felt the presage of spring. He gave expression to this annually by mixing the colors for his boat, and taking a pleasure walk on a well-chosen afternoon with his wife and daughter to a distant coffee-garden. This festive journey was but an indifferent pleasure for Laura, for Mr. Hummel walked with sturdy step in front of the ladies; he secretly rejoiced in the renewal of old nature, and only occasionally favored his ladies with a remark over his shoulder when he was annoyed at a change in the vegetation. But Laura knew that her father thought much of this March pleasure, and this year, too, she



went with her mother behind him to a solitary village, where Mr. Hummel smoked his pipe, fed the hens, scolded the waiter, and talked with the landlord about the crops and gave the sun an opportunity of rejoicing in the healthy appearance of his old friend, Mr. Hummel. Mr. Hummel, who was usually by no means averse to society, loved now to be alone with nature, and hated the place of resort of the citizens in the country, where the aroma of new cakes and fritters destroyed the perfume of nature.

When he entered the coffee-garden with his ladies, he saw with dissatisfaction that other guests were already there. He threw an indignant glance on the gay society which had taken possession of his usual place, and noticed among them the young actress, as well as other members of the theatre, and with them the son of his adversary. Then he turned to his daughter and said, blinking his eyes:

"To-day you will be well satisfied; here you have, besides the enjoyments of nature, those of art."

It was a terribly hard trial to which Laura's courage was subjected; but she raised her head proudly, and passed with her parents to another corner of the garden. There she placed herself with her back to the strangers. Nevertheless, she learnt more of their proceedings than was good for her composure. She heard the sounds of laughter, and the merry hum of the May-bug party; the less she saw of them the more painful was the noise, and every sound was audible in the deep stillness, and her mother's ears and eyes also were intent on the other party. After a time the loud conversation of the artists ceased, and she heard her name spoken in low terms. Immediately afterwards the gravel crunched behind her, and she felt that the Doctor was behind her.

He approached the table, greeted the father silently, made some friendly remarks to the mother about the weather, and was just on the point of turning to Laura with a forced composure that did not escape her, when Mr. Hummel, who had till then silently borne the intrusion of the enemy, took his pipe from his mouth, and began, with gentle voice:

"Is what I hear of you possible, Doctor?—that you wish to change your mode of life?"

Laura plunged her parasol vehemently into the gravel.

"I know nothing of it," replied the Doctor, coolly.

"It is reported," continued Mr. Hummel, "that you intend to say farewell to your books and become a professional actor. If this should be the case, I beg of you to think kindly of my little business. I have every kind of artistic head-gear: for lovers fine beaver, with galoon for lackeys, and if ever you act the punchinello, a white felt hat. But you would rather be called clown, perhaps. That is now the fashionable

*rôle*; buffoons are out of style; one shall address you as Sir Clown."

"I have no intention of going on the stage, replied the Doctor; "but if ever the idea should occur to me, I would not come to you for the artistic work of your manufactory, but for instruction in what you consider a good manners. I should then at least know what, in my profession, was *not* befitting men of breeding."

He bowed to the ladies, and went away.

"Always Humboldt," said Mr. Hummel, looking after him.

Laura did not move, but her dark eyebrows were knit so threateningly that Mr. Hummel could not help perceiving it.

"I am quite of your opinion," he said, pleasantly, to his daughter. "It is a great pity that he is spoiled by belonging to these straw-hat people, but now there is no hope for him."

He then took a bit of cake and offered it to a little poodle that was sitting on its hind legs, begging and moving its paws.

"Billy!" cried a lady's voice through the garden.

The dog Billy, however, did not attend, but continued to show his devotion to Mr. Hummel, who, having a greater tenderness for dogs than for men, was feeding him.

The actress came up hastily.

"I beg of you not to give the naughty animal any cake,—there are almonds in it," said the actress, pushing the dog away.

"A pretty dog," replied Mr. Hummel, sitting down.

"If you only knew how clever he was," said the lady; "he knows all kinds of tricks. Show the gentleman what you have learnt, Billy."

She held her parasol out: Billy sprang lightly over it, and bounded into the lap of Mr. Hummel, where he wagged his tail and attempted to lick the friendly gentleman's face.

"He wants to kiss you," said the actress. "You should be proud of that, for he does not do it to every one."

"It is not every one who would like it," replied Mr. Hummel, stroking the little fellow.

"Do not be troublesome to the gentleman, Billy," said the lady, reprovingly.

Mr. Hummel arose and presented the dog to her, which would not desist from his attempts to kiss and lick the face of the worthy citizen.

"He is a simple-hearted creature," said Mr. Hummel, "and is the same color as my dog Spitehahn."

A comparison not at all flattering to the poodle, yet plainly showing that Mr. Hummel was favorably impressed with its mistress.

(To be continued.)



## BOOK REVIEWS.

The *Art Amateur* for September seems to partake a little of the languor of the dog days, for there is no article of great importance in it. "My Note Book" refers to a portrait of Lincoln by one Travis, which it has been suggested that Congress should purchase at the extravagant price of fifteen thousand dollars. It has also various stories of picture sales and other gossip about art.

The ingenuity shown in the manufacture of antiquities is well described. It is a pity that so much skill should not be exercised in legitimate work and sold under its true name. A few words on the "Care of Paintings," may be very useful to those who have them in charge. A new application of the spectroscopic process is in determining the genuineness of gems, as no imitation of their color will give the same lines as the original stone.

A long article gives an account of a French seashore town called Etrelat, and is finely illustrated with many sketches by Walter Satterlee.

Many will be interested in the decided and original views of Benjamin Constant, the great French painter, who is shortly expected here to paint a few portraits. A great part of the number is devoted to the *technique* of Decorative Art, and is very suggestive to amateurs working in this direction.

The colored plate represents two birds of Paradise, but hardly succeeds in giving the wonderful subtle beauty of the plumage of these almost fabulous birds. The designs are varied and interesting. The *Art Amateur* has become almost a monthly necessity to those engaged in fancy work.

E. D. C.

GRUNDRISSE DER CHRISTLICHEN GLAUBENS- UND SITTENLEHRE, als Compendium für Studierende und als Leitfaden für den Unterricht an höheren Schulen; by Otto Pfeleiderer. Berlin: 1888. Georg Reimer.

Prof. Pfeleiderer's book, "The Rudiments of Christian Dogmatics and Ethics," is now in its fourth edition,—a substantial tribute to the merits and excellencies of a work upon a subject so prolific of rigid treatment. We might add that its success must indicate more than usual merit from the fact of its appearance in a country where Protestant theology has long since attained a scientific basis, and where cool and impartial investigation of ecclesiastical antecedents has not brought with it the odium of heterodoxy or the curse of miscreancy. In Germany, practical and scientific theology have been developed in independent directions. The ministers of practical faith have worked *pro salute animarum*; the ministers of scientific theology have labored *pro salute veritatis*. In England the process has been different. Anglican theology has invariably been fashioned by the necessities of Anglican faith. Ecclesiastical history, and the criticism of creed in the light of contemporaneous secular tendencies, has never been allowed its proper place in the curriculum of the Anglican theological education. Gibbon was said to be the only ecclesiastical historian of eminence in England—and he an atheist! Cardinal Newman imputes this fault to a well-founded reluctance to investigating the grounds on which the title of Protestantism is founded. "Protestantism," says he, "if anything, is not historical. This is shown in the determination already referred to, of dispensing with historical Christianity and of forming a Christianity from the Bible alone. German Protestantism, on the other hand, has been of a bolder character; it has calmly faced and carefully surveyed the Christianity of eighteen hundred years, and it frankly avows that it is a mere religion of man and the accident of a period. It considers it a syncretism of various opinions springing up in time and place, and forming such combinations one with another as their respective characters admitted."

Let us note briefly in how far Prof. Pfeleiderer has conformed to this historico-scientific method. "Dogmatics," he says, "is

first of all a positive-historical branch of instruction. Since the creed of Christianity is the outcome of the historical rise and growth of the Christian congregation, it follows that it cannot be derived from the simple self-consciousness of the individual, nor from subjective reason, nor from a subjective sense of piety." But its office is, further, apologetic and critical, whereupon the author remarks: "The subject-matter for apologetic treatment can only be the *religious* content of dogma, as serving to determine the devotional character of the congregation, and not the scholastic and formal dress in which dogmatic ideas are clothed; for the latter are based upon the conceptions of the antique world and upon philosophical theories of past ages, and regarded from the altered ways of thinking obtaining at present, they tend more to veil than to express the religious truth of Christianity." Prof. Pfeleiderer says that "in so far as dogmatics conforms in its processes to the established methods of scientific investigation and of rational thought, and in so far as its object is to ensure logical consistency within its own domain and to bring its postulates into consonance with universal knowledge, in so far does it acquire the title and character of a pure science. But in so far as it loses sight of the interests of universal knowledge and aims merely at satisfying the practical religious needs of the Christian congregation, in so far does it relinquish all claim to the correctness and logical necessity of its conclusions, and must be ranked among the practical or technical methods of scientific procedure." Thus, the divisions of the work naturally fall into two parts: the development and analysis of Christian doctrine and of Christian principles as actually evolved in time and place, without the interspersal of ideas suggested by "the subjective sense of piety"; and the history and results of the adaptation of these ideas to the practical needs of the Christian body corporate. As to the latter it is unnecessary for us to say a word; with the exception of an occasional fling at Catholicism, which is pardonable from the evangelical standpoint, the exposition is fair and conformable to facts. But the former may lay claim to unusual excellence; it is a paragon of objective treatment. It is concise and logical; it is comprehensive and flexible. It does not moralize, it is not disputatious, nor discursive. A Mahometan might read it without any fear whatsoever of a corruption of faith. It will suffice to remark that it conforms in every way to the criteria of scientific investigation above quoted from Dr. Pfeleiderer, and may be heartily recommended to those who would acquire an accurate knowledge of Christian doctrine, without being obliged to break their way through the underbrush of controversial debate and sermonizing comment. μικρ.

## NOTES.

We learn with great sorrow of the sad death of Richard A. Proctor.

Prof. E. D. Cope will discuss "The Relation of the Sexes to Government" in the *Popular Science Monthly* for October.

We call attention to the notice in this number by Mr. George Willis Cooke, who is recommended by names as prominent as Mrs. Julia Ward Howe, Edwin D. Mead, etc. Mr. Cooke is the author of "Poets and Problems" and other works on modern literature.

A circular received from Mr. George Stearns informs us that a new work of his "The Pericomic Theory" is ready for press and will be printed as soon as a goodly list of subscribers warrant the publisher against contingent loss on his part of the enterprise. The first chapter of Mr. Stearns' work has been published in THE OPEN COURT, No. 20, under the title, "The Mystery of Gravity." Other parts in chapters are, so far as can be judged from the prospectus, a very interesting attempt at solving the problem.



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## Recent Contributions to 'The Open Court.'

THE FOUNDING OF OUR RELIGIOUS FREE-  
DOM.

By MORGUE D. CONWAY. In No. 52 and 53.

Mr. Conway here discusses a subject that the present Century Era renders timely and interesting. The glorious immunities of civil liberty that our ancestors wrested from the grasp of feudal traditions and confirmed by constitutional bulwarks, were attended perhaps with greater brilliancy and marked by greater effort of acquisition; but, from the standpoint of individual freedom, liberty of conscience and the principle of religious toleration rank not below them in importance. Mr. Conway's story is drawn from unpublished sources, from private manuscripts, and is in the main the result of original research. The state of the Church of England in Virginia, the apostolate of Samuel Davies, the religious tendencies of colonial society, the religious profession of men to become so famous in history, of Randolph, of Patrick Henry, of Madison, and of Jefferson—are all described and discussed, and the manner told in which both the institutions and the men of that era affected and influenced the founding of religious freedom in the United States. The new light which Mr. Conway's research throws upon this important chapter of American history, will be welcomed by all.

THE PSYCHIC LIFE OF MICRO-ORGANISMS.

ALFRED BINET. In Nos. 49, 50, 51, 55 and 56.

In the whole domain of Natural Science no field of investigation affords such a fascinating com-

plexity of phenomena or such a varied wealth of vitality as the Kingdom of the Protozoans, the minute organisms revealed to us by the aid of the microscope. They inhabit the water we drink, the food we eat, the air we breathe. They live as parasites in the intestines and flesh of animals, and in plants; aiding or injuring their hosts, as the case may be. They lie dormant in a particle of dust, a legion in number. They roam free and unconfined in a drop of water, to them a world. Infinite in number, variety of size and manner of appearance, the same beings that the unaided vision of man cannot alone discover, form no unimportant factor in the construction of continents and in the configuration of the surface of the globe. They are the simplest known forms of life, and every contribution that throws light upon their mode of existence, cannot fail to be of transcendent interest to biologist and scientists in general.

M. Alfred Binet, the collaborator of Ribot and Féré, and one of the most eminent representatives of the French School of Psychology, has presented in this series of articles the results of the most recent investigation into this department of Life. Every phenomenon that the improved methods of microscopic research have shown to be indicative of an exercise of intelligence, will, or feeling in these minute beings is fully discussed and analyzed. M. Binet has added much by these articles to the psychology of the microscopic world; he has opposed many theories, confirmed others, and advanced many conclusions of his own. The correspondence elicited in France by these essays will be published at the conclusion of the series.

The articles have been translated from the *Revue Philosophique*, and the original cuts procured from the publishers.

## THE PROBLEM OF CAUSALITY.

In No. 55 is an editorial discussion of The Problem of Causality. The surpassing importance of this subject renders a clear conception of it absolutely indispensable to correct observation and sound reasoning. Despite this the problem has been unbecomingly neglected, and this neglect has given rise to innumerable errors and to an astounding lack of lucidity in scientific discussion.

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## REFLEX MOTIONS.

G. H. SCHNEIDER. In No. 24.

G. H. Schneider's book, *Der Menschliche Wille*, is one of the most prominent delineations of modern psychological research. The essay on Reflex Motions is a translation of the basic chapter of Schneider's work. It contains the fundamental propositions of physiological psychology.

## BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.

FELIX L. OSWALD, M.D. In Nos. 27, 29, 31, 33, 34, 35, 36, 40, 42, 44, 45, 48, 51 and 54.

The Science of the thousand-fold moral effects of physical causes is still a sealed book to a large plurality of our fellow-men. The ethics we have inherited is biased by the tenets of an anti-physical and anti-natural philosophy, and the tendency of the latter has ever been to sanction and exaggerate the physical effects of moral causes. Dr. Oswald says: "Our entire system of moral education needs a thorough revision, and the success of urgent social and ethical reforms depends on the radical reconstruction of moral philosophy on a basis of natural science." The subject is treated in the graphic manner which has ever characterized Dr. Oswald's contributions to the Literature of Natural History and Anthropology. It is marked by the usual wealth of illustration and abounds in felicitous and pertinent citations of historical and natural evidence.



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## THE PSYCHIC LIFE OF MICRO-ORGANISMS.\*

BY A. BINET.

Translated from the "*Revue Philosophique*" by *μικρο*.

PART VI.

III.

### THE QUEST AND CAPTURE OF FOODS.

Concerning the prehension of foods and the search for nutriment on the part of Ciliates, we can do no better than to quote entire a note which M. E. Maupas has been pleased to send us upon the subject. We had put to him two questions: *First*, do the Ciliates hunt their food? *Second*, while in quest of live prey, do the Ciliates called hunters make an actual hunt, involving the espial of prey from a distance and the voluntary pursuit of the same in the circuitous paths they follow? M. E. Maupas after having once more had recourse to observation, briefly recapitulates his opinion in the following lines:

"From the standpoint of prehension of food, the Ciliates may be divided into two great groups:

1. Ciliates with alimentary vortices;
2. Hunter Ciliates.

"In the first group the mouth is always held wide open, and along with the nutritive particles which the current of the vortex keeps constantly sucking in, we may at will cause other, absolutely inert and indigestible, particles to take the same course; for instance, such substances as granules of carmine, indigo, and rice-starch. These granules, totally unfit for nutritive purposes, pass through the body of the Ciliates along with the genuine nutriment and are finally cast out intact with the excrement. I think, therefore, we may affirm that the species having alimentary vortices exercise no real choice in selecting their foods, and that they absorb indiscriminately all corpuscles which by reason of their form and density admit of being seized and drawn into the alimentary whirlpool.

"In the case of the hunter Ciliates proper, the mouth is constantly closed. The act of absorbing each object captured is accomplished by a process of deglutition comparable in every phase to the like process in higher animals. Furthermore, these species feed only upon living prey, which they capture and entammel by means of their trichocysts (*vid. Archives de Zoologie*, Vol. I. 1883, p. 607 and ff.). By this very act

they exercise a choice in the selection of food. But this manifestation of choice is not, in my opinion, the result of preference, or of individual taste, but is the consequence of the peculiar construction of their buccal apparatus, which does not enable them to take other and different nourishment.

"These hunter Infusoria are constantly running about in quest of prey; but this constant pursuit is not directed towards one object any more than another. They move rapidly hither and thither, changing their direction every moment, with the part of the body bearing the battery of trichocysts held in advance. When chance has brought them in contact with a victim, they let fly their darts and crush it; at this point of the action they go through certain manœuvres that are prompted by a guiding will. It very seldom happens that the shattered victim remains motionless after direct collision with the mouth of its assailant. The hunter, accordingly, slowly makes his way about the scene of action, turning both right and left in search of his lifeless prey. This search lasts a minute at the most, after which, if not successful in finding his victim, he starts off once more to the chase and resumes his irregular and roving course. These hunters have, in my opinion, no sensory organ whereby they are enabled to determine the presence of prey at a distance; it is only by unceasing and untiring peregrinations both day and night, that they succeed in providing themselves with sustenance. When prey abounds, the collisions are frequent, their quest profitable, and sustenance easy; when scarce, the encounters are correspondingly less frequent, the animal fasts and keeps his Lent. The *Lagnus crassicolis*, accordingly, never sees its victim from a distance and in no case directs its movements more towards one object of prey than towards another. It roams about at random, now to the right and now to the left, impelled merely by its predatory instinct—an instinct developed by its peculiar organic construction, which dooms it to this incessant vagrancy to satisfy the requirements of alimentation.

"The vortical Infusoria, when in a medium abounding in food, are almost entirely sedentary in their habits, only making slight changes of position. But if they are placed in a medium affording but little nutritive material, they become as migratory as the hunt-

\* Translation copyrighted.



ers, and are seen to race about in all directions searching for more abundant nutriment. It is hard to find a more perfect illustration of the influence exerted by the conditions of a medium upon the habits and customs of animals.

"The *Leucophrys patula* is a type distinctively carnivorous and possessed of an extremely voracious appetite, a fact which explains its power of multiplication, one of the greatest I have studied. With a temperature of 25° in my laboratory I have recently seen it separate by fission seven times in twenty-four hours, that is to say, a single individual produces from itself just one hundred and twenty eight others in that time. In constant pursuit of its prey, it seizes its victims by the two stout vibratile lips with which its mouth is armed, and swallows them alive and whole. The victims may be seen struggling and tossing about for a time in the interior of the *Leucophrys's* body and afterwards to expire slowly under the action of the digestive juices of the vacuole in which they have been enclosed. Placed in a medium well-stocked with small Ciliates, the *Leucophrys* have their bodies constantly crammed with victims swallowed in the manner above described. Like the other hunter Ciliates the *Leucophrys* does not espy its victims from a distance and does not guide itself towards them. It simply darts about from right to left, every moment changing its direction. It thus increases its chances of coming in collision with its prey and every time that one of its unfortunate victims falls in contact with its vibratile lips, it is seized, irresistibly drawn towards the mouth and swallowed within less than a tenth of a minute."

Certain hunter Infusoria have methods of pursuit and capture which deserve to be examined separately. Claparède and Lachman in their excellent work upon Infusoria and Rhizopods, have minutely described the manner in which a large Infusory, the *Amphileptus Meleagris*, attacks the *Epistylis plicatilis*. The *Epistylis* are colonizing vorticels of which certain individual members attain a size of not less than 0.21 mm. The *Epistylis* form aborescent groups, the ramifications of which are quite regularly dichotomous. These ramifications all grow at exactly the same rate and the individual branches all rise to the same height, representing what is called, in botany, a corymbose inflorescence. "We were observing one day," says Claparède, "in the hope of seeing what would come of the manœuvre, an *Amphileptus*, which was slowly creeping upon a colony of *Epistylis*. The way in which it approached the Vorticels, feeling them, so to speak, and partly enclosing them in its pliable body, already seemed suspicious. At last, it made a direct attack upon one of them by fastening itself upon the upper part of its body. It opened its huge mouth,

which is never to be seen except when the animal is eating, and slipped over the *Epistylis* like the finger of a glove being drawn upon a finger of the hand. We saw the sides of the buccal aperture (which are capable of being dilated in a truly astonishing manner) slip slowly over the peristome and upon the body of its prey, and then draw together about the point where it was made fast to the pedicle. The cilia covering the body of the *Amphileptus* began to shake with that peculiar motion which is always noticed when a ciliated Infusory secretes a cyst. At the expiration of a moment or so, a fine line was seen to appear around the whole body which continued to spread so as soon to form the cyst." (This might be called a cyst of digestion.) "The phenomenon as a whole is quite simple. An *Amphileptus* approaches an *Epistylis*, devours it and encysts itself upon the spot, the victim being still attached to its pedicle. It then endeavors to wrench the *Epistylis* from its point of attachment by twisting; it turns on its axis from left to right and then from right to left, successively; when it has succeeded, it continues its work of digestion, and occasionally divides in two within the cyst itself. During the last stage of digestion, it rests for a while, when it commences again to turn about in the cyst, evidently seeking to disengage itself. At the close of a certain number of hours, the cyst breaks. The *Amphileptus* issues forth and starts in quest of another victim."<sup>\*</sup>

The hunter Infusoria are frequently armed with *trichocysts*. Trichocysts are urtical filaments which serve the animalcula provided with them to disable or wound other micro-organisms.

A large number of Infusoria, the *Paramecia*, the *Ophryoglena*, etc., use their trichocysts as organs of defense. With other species, of which we shall speak more at length, the trichocysts are organs of offense. They are located either in the sides of the mouth or in parts adjacent thereto; this is the case with the *Lacrymaria*, the *Didinium*, the *Enchelys*, the *Lagynus*, the *Loxophyllum*, and the *Amphileptus*.

These latter animalcula attack the live prey that constitutes their food, in the following manner. They dash upon their victim and bury the trichocysts with which they are armed, into its body. The victim is immediately brought to a halt, whereupon the hunter seizes it and swallows it. So, when the *Lagynus Elongatus* intends to seize a victim that has fallen into its vortex and has thus been drawn into the neighborhood of its mouth, it throws itself swiftly forward. At the moment of contact the hunted Infusory becomes suddenly paralyzed and remains perfectly motionless. This paralysis is evidently caused by the trichocysts which line the œsophagus of the *Lagynus* and with

<sup>\*</sup> *Études sur les Infusoires et les Rhizopodes*, Vol. II. p. 166, 1881.



which the latter has transpierced its prey at the moment it came in contact by its anterior extremity.\*

In a higher stage of organization, the Microzoön possessing a mouth changes its position in order to intercept its prey, and give it chase.

The *Didinium Nasutum* (Stein), a carnivorous Infusory and one of the most voracious of our fresh stagnant waters, operates in a more complicated manner: it casts its trichocysts upon its victim from a distance. The importance of this instance induces us to stop here a moment.



Fig. 7.—*Didinium nasutum*, enlarged two hundred diameters. The figure represents a *Didinium* overpowering a *Paramecium aurelia*. The nettle-like filaments discharged by the *Didinium* are seen on all sides of the *Paramecium*; while the latter, already seized by the tongue-shaped organ of the *Didinium*, is being gradually drawn towards the buccal orifice (after Balbiani).

The *Didinium* (fig. 7), as regards the general shape of the body, may be compared to a diminutive cask, rounded off at one of the ends and terminated at the opposite extremity by an almost level surface from the midst of which rises a conical projection quite strongly

marked. This projection is an organ of deglutition (swallowing); a longitudinal striation is noticed here formed of minute

solid rods, of extreme tenacity and independent of the sides. These organs are the weapons used by the *Didinium* in attacking the live prey which constitutes its sole nourishment.

Not only does it attack and devour animalcula almost as large as itself, but frequently it even seizes individuals of its own kind. In such cases it is always Infusoria, and never the Rotatoria, although the latter often abound in waters which the *Didinium* inhabits. It appears, moreover, to have a marked predilection for certain species; and so it happens that the huge and inoffensive *Paramecium aurelia* is almost always its choice by preference among the animalcula that inhabit the same liquid.†

The prehension of food by the *Didinium* exhibits interesting aspects, which have not as yet been observed in any other Infusory. M. Balbiani, in his first observations, had often been surprised at seeing animalcula that the *Didinium* had passed by without touching, suddenly stop as if violently paralyzed; whereupon our carnivorous specimen straightway approached and seized them with seeming facility. More careful examination of the *Didinium*'s actions soon furnished the key to this enigma. If, while swiftly turning in the water, the *Didinium* happens

into the neighborhood of an animalculum, say a *Paramecium*, which it is going to capture, it begins by casting at it a quantity of bacillary corpuscles which constitute its pharyngeal armature. The *Paramecium* immediately stops swimming, and shows no other sign of vitality than feebly to beat the water with its vibratile cilia; on every side of it the darts lie scattered that were used to strike it. Its enemy then approaches and quickly thrusts forth from its mouth an organ shaped like a tongue, relatively long and resembling a transparent cylindrical rod; the free, extended extremity of this rod it fastens upon some part of the *Paramecium*'s body. The latter is then gradually brought near by the recession of this tongue-shaped organ towards the buccal aperture of the *Didinium*, which opens wide, assuming the shape of a vast funnel in which the prey is swallowed up.\*

Up to this point we have paid little attention to movements of defence and of flight. Upon this subject a few words will suffice. When vorticeles are alarmed, they are seen to contract forcibly their pedicle, which in a state of rest stays extended. Infusoria placed in a preparation where they are at their ease, swim quietly about; if any sharp excitation disturbs them, they accelerate their pace; those armed with a rigid bristle at the posterior extremity, rush precipitately onward whenever another Infusory chanches to touch that tactile appendage. The unaggressive *Paramecia*, when attacked, endeavor to escape, but are also able to defend themselves by means of the trichocysts with which their ectosarc is armed.

#### IV.

Unicellular organisms do not all live in a detached state; a large number of species are found grouped together in colonies; the initial basis of these agglomerations is always a mother cell, the offspring of which instead of dispersing to live at large, remain agglutinated to one another. Ehrenberg had believed that in certain species (especially in the case of the *Anthophysa vegetans*, an aggregation of minute monads growing as a sort of bush) the colony was created by the union of minute organisms that originally lived at large; but observation has shown that his theory was incorrect. It may be laid down as a general rule that every colony of monocellular animals or vegetables spring from the divisions of a single cellule. The cellules of one and the same colony, therefore, are always sister cellules, and the colony represents a family in miniature.

A leading instance of a colony wholly temporary, is found in those organisms the cuticle of which does not take part in the phenomena attending the division

\* Maupas, op. cit., p. 495.

† The *Didinium*, Balbiani tells us, never attacks the *Paramecium bursaria*, which is distinguishable from the *P. aurelia* by its green coloration.

\* *Archives de zoologie expérimentale*, 1873, Vol. II, p. 363. *Observations sur le Didinium nasutum*, by E. G. Balbiani.



of the protoplasm. In this case, the protoplasm beneath the envelope alone divides; the segments resulting therefrom are often numerous, and it is not until the plasma has finished dividing that the maternal cuticle is destroyed and that the segments separate to live abroad in a detached state. Up to that time they remain bound together.

It is thus seen that the existence of this minute colony is a transient phenomenon, which lasts only during the time necessary for the division of the maternal body. These phenomena have been noticed among many of the Flagellates. What appears surprising is, that the maternal cellule, although continuing to divide beneath the envelope, keeps on moving about in the water by means of its own flagellum as if still constituting only a single animal. The reason of this is that one of the segments into which the plasm is divided and which is situated in the anterior part of the mother-cellule, remains connected with the flagellum and takes charge of its movements. This segment (like an individual distinct in itself) alone guides the bark that carries its sisters. And so, although this diminutive colony is as a rule but short-lived, a division of labor has been effected among its members; the anterior segment is alone entrusted with the office of locomotion.

The colony has a duration less ephemeral in the case of the *Gonium pectorale*, a Volvocine known in our fresh waters. It is formed by the aggregation of sixteen individuals which remain detached but adhere laterally to one another. The colony is developed in one way only: it is in the form of a minute rectangular plate of a beautiful green color. In the case of the *Pandorina*, the colony assumes the form of a minute sphere; it is composed of sixteen, or as many as thirty-two individuals, joined together beneath a stout envelope; each member remains free in action, and projects its two flagella through the cuticle. With the *Eudorina elegans*, the colony is modeled upon nearly the same plan excepting that it is composed of thirty-two individuals and that the latter, placed beneath the same cuticle at equal distances apart, do not touch one another.

In the genus *Volvox*, colonies are found of which the structure is very complicated. Such are the great green balls formed by the aggregation of diminutive organisms, which form the surface of the sphere, and are joined together by their envelopes; they have each two flagella, which pass through the enclosing membrane and swing unimpeded on the outside; the envelopes, each tightly holding the other, form hexagonal figures exactly like the cells of a honeycomb. Each *Volvox* is at liberty within its own envelope; but it projects protoplasmic extensions which pass through its cuticle and place it in communication

with its neighbor. It is probable that these protoplasmic filaments act like so many telegraphic threads to establish a network of communication among all the individuals of the same colony; it is necessary, in fact, that these diminutive organisms be in communication with each other in order that their flagella may move in unison and that the entire colony may act as a unit and in obedience to a single impulse. The number of micro-organisms constituting a *Volvox* colony is quite considerable: as many as 12,000 have been counted.

It was upon analogous phenomena that Gruber based the existence of a diffused nervous system in the Stentors. The same line of reasoning may be followed in the case of the *Volvox*. Since unanimity of movement is demonstrable among twelve thousand micro-organisms constituting a colony, it must be inferred that their movements are regulated by the action of a diffused nervous system present in the protoplasm. This conclusion is all the more interesting from the fact that these *Volvox* are vegetable micro-organisms.

In the diœcian *Volvox*, the female cellules and the male cellules are joined together by themselves in separate colonies. When the time of fecundation arrives, the male cellules or antherozoids scatter and proceed to conjugate with the female cellules. The colony which bears the female cellules also contains neutral cellules which are not designed for fecundation; the latter simply perform a locomotive function; equipped with one eye and two flagella, they are intended to move the great colonial ball: they are the oarsmen of the colony. The *Volvox*, male, female, and neutral, all seek the light, whether solar or artificial, and settle near the surface of the water. As soon as the female colonies have been fecundated, the oöspores change their color: they turn from green to an orange yellow. At this point, the colony is seen to draw away from the light and to disappear from the surface of the water. This change of position is effected by means of the vibratile cilia with which each neutral cell is furnished and which project beyond the gelatinous sphere; now, as no change of color or form is noticed in the neutral cells after fecundation, it may be asked from what cause they flee from the light which they formerly sought.

Colonies of Proto-organisms formed by the division of a mother cell of which the segments remain united, are not entirely without analogy with a pluricellular organism which likewise springs from a single cell called the egg, and the resultant divisions of which do not separate.

The colony constitutes in a way a first step towards the physiological constitution of a pluricellular organism; it serves to fix a stage of transition in the animal



kingdom, between Protozoa and Metazoa. A fact which strengthens this analogy is, that certain colonies, as the *Synura uvella* and the *Uroglana volvox*, can divide into two other colonies; strangulation acts upon the mass just as if upon a pluricellular organism. This curious observation was made by Stein and Bütschli.

Nevertheless, an essential difference still separates the Metazoa and the Protozoan colonies, even when in these colonies a division of function has been established among several individual groups. The physiological differentiation brought about in these Protozoan colonies is the result of a mechanism which differs in every respect from that by which it is effected in the case of the Metazoans. In the latter instance the differentiation results from the division of the embryo into *germinative folia* each of which is the origin of a separate group of organs. At a certain stage of development, the superposition of these folia gives rise to the formation of a *gastrula*; the *gastrula* is formed by two folia joined together, representing a pouch open to the outside; it is characteristic of Metazoans, the Protozoan never reaching this stage. Certain colonies observed by Haeckel, the *Magosphera planula* for example, and the *volvox*, of which we have before spoken, appear in the form of a sphere; they suggest an anterior stage of development to which the name of *morula* or of *blastula* has been given; but they do not get beyond this stage.

We have now considered assemblages of organisms which live joined together like the Gonium and sometimes united by a material band like the *Volvox*, where the individuals are grouped together under one and the same cuticle. Voluntary and free combinations are much more rarely met with; nevertheless cases occur. There exist organisms which lead a life of habitual isolation but which understand how to unite for the purpose of attacking prey at the desired time, thus profiting by the superiority which numbers give.

The *Bodo caudatus* is a voracious Flagellate possessed of extraordinary audacity; it combines in troops to attack animalcula one hundred times as large as itself, as the Colpods for instance, which are veritable giants when placed alongside of the *Bodo*. Like a horse attacked by a pack of wolves, the Colpod is soon rendered powerless; twenty, thirty, forty *Bodos* throw themselves upon him, eviscerate and devour him completely (Stein).

All these facts are of primary importance and interest, but it is plain that their interpretation presents difficulties. It may be asked whether the *Bodos* combine designedly in groups of ten or twenty, understanding that they are more powerful when united than when divided. But it is more probable that voluntary combinations for purposes of attack do not take place among these organisms; that would be to grant them

a high mental capacity. We may more readily admit that the meeting of a number of *Bodos* happens by chance; when one of them begins an attack upon a Colpod, the other animalcula lurking in the vicinity dash into the combat to profit by a favorable opportunity.

(To be continued.)

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M.D.

Part XV.

#### SOIL AND CLIMATE. (Continued.)

During the golden age of the Mediterranean republics the borderland of the temperate zone and the tropics seemed to unite all the conditions of a superior civilization. For nearly a thousand years Greece, Italy, Asia Minor, Syria, and northern Africa were studded with flourishing cities, while the natives of the higher latitudes had hardly advanced beyond a stage of utter barbarism. The "towns" of pagan Germany were mere fortified camps; the vast region of alluvial plains between the Vistula and the lower Rhine was covered with almost continuous forests, when Mauritania (the modern Morocco) could boast famous seats of learning and Alexandria contained the largest library of the Mediterranean coast-lands.

Time has completely reversed that order. Africa and Asia Minor have relapsed into savagery and nomadism, while northern Germany is a hive of industrial enterprise. Scotland the "home of the frozen Picts," is tilled like a garden, while the "promised land" is covered with desert thorns. Those undeniable facts have tempted several Christian apologists to deny the moral influence of climate and ascribe the blessings of civilization to metaphysical (religious) rather than natural agencies. "Civilization," says Chateaubriand, "has followed the apostles of the cross from the Nile to the banks of the Seine. When St. Augustine ruled the bishopric of Hippo, Africa was Eden and Gaul a wilderness. Now the crescent reigns over a moral and physical desert, while the genius of Christian ethics has made the North the home of culture and happiness. The religion of love has effectually changed the social condition of this planet."

The main key to the enigma of that change can, however, be found in the circumstance that the civilization of a healthy wilderness is a far easier task than the redemption of an exhausted soil. Twenty years after the followers of Daniel Boone entered the "dark and bloody ground" of the Kentucky woodlands those woods rescinded with the hum of traffic and the music of school-bells. Twenty centuries of irrigation and tillage would hardly suffice to restore the promised land to its former state of productiveness. One by

\* Copyrighted.



one the nations of the Mediterranean paradise were overtaken by the marasmus of decrepitude—a disease for which the resources of science seem to offer no remedy. The wild hunters of the north were for ages contented with the freedom of their native woods, but long before their succession to the political supremacy of this planet they were *potentially* the superiors of their cultured neighbors. Cyrus the Great, who defeated his southern rivals almost as easily as the Macedonian invaders afterwards defeated his successors, had to pay his mistake with his life when he undertook to meddle with the savage tribes of the Massagetæ—probably the ancestors of the Ostrogoths. Darius Hystaspes, with all his western auxiliaries, barely escaped a similar fate on his campaign against the independent Scythians. Four centuries before the beginning of our chronological era two tribes of savage Gauls cut their way through northern Italy, routed the Umbrians, routed the Etruscans, routed the armies of republican Rome, entered Rome itself, and retreated only upon payment of an enormous bribe. A hundred years after, i. e., during the very zenith-period of Grecian civilization, a second swarm crossed the borders of Macedonia, fought their way across the Hellespont and conquered large portions of Syria and Asia Minor. Neither discipline nor superior arms could avert the fate of Rome when the Visigoths crossed the Danube *en masse*. A rare conjunction of favorable circumstances enabled the Saracens to accomplish the conquest of Spain before the subjects of the Gothic monarch had recovered from their first surprise; but already a century after the battle of Xeres de la Frontera we find Gothic chieftains bearding the Moors in their southern strongholds. Fernan Gonzales (born A. D. 887) reconquered Burgos and Salamanca. Fernando III., captured Cordova and expelled the Moors from Seville after the prestige of their power had already received a fatal check on the battlefield of Tours, where the iron fists of the Northland warriors prevailed against the superior tactics and fanatical valor of their opponents.

For the next thousand years the history of Europe records, indeed, an almost uninterrupted series of victories of northern nations over their southern neighbors. "Civilization," during that age of iron and blood, changed hands almost as readily as political power. The seeds of culture sprouted in the soil of the higher latitudes, the victors inherited the arts, the science, and the industries, as well as the wealth of the vanquished; and the usual concomitants of defeat, servility and indolence, completed the degradation of the fallen races. Now and then the fortune of war alone has forever decided the fate of a valiant nation by the actual extirpation of all its able men, as in the battle of Vercellæ where the entire force of the Cimbri was

not only routed, but slain, by the legions of Marius, or on the plateau of Gunib, where the Russians annihilated the most warlike tribe of the Circassian highlanders. As a rule, though, degeneration precedes such defeats, or makes their consequences more fatal. The disastrous folly of the Crusades cost the nations of Christendom more than a million lives, representing the very flower of their chivalry; yet the homes of the slain heroes still nourished the roots of valor, and a few years of peace healed the wounds of war, as spring heals the havoc of winter. But spring and summer return in vain where the soil itself has lost its reproductive force, and worn-out Syria will perhaps never recover from the storm of conquest that has swept her plains like the blast of the blighting simoom; on the barren hills of Greece the sunshine of a hundred peaceful years would not revive the buried age of the Olympic festivals; and the civil wars of Spain have probably sealed the fate of an exhausted nation. The flowers of civilization have the earliest faded where they developed their earliest buds. Instead of arresting that decay, the delusions of supernaturalism have unquestionably accelerated its progress. The world-renouncing fanaticism of the early Church contributed more to the ruin of the Roman Empire than world-conquering ambition of the Gothic warriors. "That Church," says Lecky, "consisted of men who regarded the Roman government as a manifestation of Antichrist, and who looked forward with passionate longing to its destruction. It did its utmost to substitute a new enthusiasm for that patriotism which was the very life-blood of the national existence. Many of the Christians deemed it wrong to fight for their country. All of them aspired to a type of character and were actuated by hopes and motives wholly inconsistent with that proud martial ardor by which the triumphs of Rome had been won, and by which alone her impending ruin could be averted." (*History of Morals*, Vol. I. p. 413.)

"Not to the division of the Empire Rome owed her downfall," says Heine, "but on the Tiber as on the Bosphorus her strength was consumed by the poison of dogmas, and here, as there, Roman history became the chronicle of a wasting disease, of an agony prolonged for centuries of hopeless decline. Does it not seem as if outraged Asia had avenged her wrongs by the fatal gift of that creed—as fatal to the victor as the shirt which the dying Centaur poisoned with his own blood to avenge his death at the hands of a resistless conqueror? Rome, the Hercules of Nations, was consumed by the virulence of that poison till helmet and shield dropped from the nerveless body and the voice of battle-shouting heroes died down to the whimper of praying priests. . . . The dogmas of that creed spread with the rapidity of a pandemic plague;



throughout the Middle Ages the fever raged in paroxysms of fitful fury, and the tremor of exhaustion still weakens the nerves of the present generation." (History of Religion and Philosophy, p. 11.)

"The monody of Libanius\* was the dirge of pagan civilization. As soon as the light of philosophy had faded, the vampires of superstition became aggressive, and for the next thousand years the moral history of Europe is the history of an unrelenting war against Nature, a war which systematically promoted the survival of the unfit by making common sense a stigma and free inquiry a capital crime. . . . Between the morning-light of pagan philosophy and the evening-light of modern science intervened a thousand years' eclipse of human reason, a millennium of madness and misery which, but for that unnatural night, might have been the happiest period in the history of mankind. The rule of superstition robbed the Germanic nations of the spring-time of their national development. When they awakened from the morning-slumber of their political infancy they found themselves in the coils of a strangling serpent, and the prime of their strength, which might have won them the golden prizes of the international arena, had to be wasted in the struggle against the monster that threatened to crush out their reason and their life. In that struggle for life and light, the Hercules of the North finally prevailed, but the Apollo of the South succumbed to the Python; the Mediterranean paradise was forever lost." (Secret of the East, p. 63.)

"The refuge of the convents," says Blanqui, "was doubtless a welcome retreat to the oppressed, but the human race never suffered a more cruel outrage, industry never received a wound better calculated to plunge the world back into the darkness of the rudest antiquity. It suffices to say that the prediction of the approaching end of the world,—a rumor industriously spread by the rapacious monks of that time, was received without terror." (*Résumé de l'Histoire du Commerce*, p. 156.)

The sophism of Chateaubriand can therefore be reduced to the fact that the age of superstition, though it greatly retarded, did not altogether prevent the civilization of the northern nations, and that nature at last prevailed in the struggle between the normal influence of climate and the abnormal influence of a far-spread moral epidemic.

Vice, *per se*, cannot adequately account for the degeneration of southern nations, though as a collateral explanation, it may be accepted in connection with the circumstance that *in the south the besetting foibles of mankind can be indulged with less impunity than in the climate of the colder latitudes*. Frost is an antiseptic. The yearly experience of our southern states

demonstrates the truth that malarial diseases can develop their epidemic forms only during the warmer seasons, and that even in midsummer they rarely spread beyond a certain degree of altitude or latitude. The first frost generally puts a stop to the ravages of yellow fever. The deadliness of that disorder increases as we approach the tropics, and there is no doubt that intemperance is one of its chief pre-disposing causes. "From my own knowledge," says the author of "Tropical Diseases," "as well as from the observation of others, I aver that those who drink nothing but water or make it their principal drink, are but little affected by the climate, can undergo the greatest fatigue without inconvenience, and are less subject to the contagion of troublesome or dangerous diseases." "For twenty years," Dr. L. C. Ward writes from Sumatra, "I have had the opportunity of observing the comparative effects of the use of spirituous liquors and less stimulating drinks by different classes of the natives, and I find that while the former expose themselves with impunity to every degree of heat, cold, and wet, the latter can endure neither wet nor cold, for even a short period, without great danger to their health."

The diseases aggravated by the influence of habitual intemperance are not wholly limited to the lower latitudes. "The use of alcoholic drinks," says Dr. R. E. Adams, "I have found to be a great pre-disposing cause of malignant disorders. So strong is my opinion on this point that, were I one of the authorities and had the power, I would placard every rum-shop in town with the words: 'Cholera sold here!'"

Cholera has repeatedly spread as far north as Edinburgh and Boston, but, as in yellow fever epidemics, the percentage of mortality increases with the distance from the poles, and for one Scotchman or New Englander victimized by such consequences of intemperance, a dozen Southlanders would risk to pay their vice with their lives, or transmit to generations of their offspring the indirect penalties of a ruined constitution.

The effects of gluttony, too, are counteracted by the antidote of a low temperature. "High livers should emigrate to high latitudes," writes Dr. Atkinson from the banks of the Lena, "in this climate it is certainly difficult, if not actually impossible, to eat to a physically damaging excess. I have put myself outside of plate after plate-full of fried gull's eggs, fried fish, fried seal-liver, with *entremets* of caviare and toast, till I felt positively ashamed of myself, but my appetite failed to diminish, and the deserved consequences forgot to arrive. A temperature of fifteen degrees under zero in September seems to compensate its victims by making them surfeit-proof." A little further south that immunity is less absolute; but even in the latitude of New England we find that the consequences

\*On the death of the Emperor Julian, A. D. 363.



of gastronomic excesses are less disastrous in mid-winter than in midsummer. Gastric chills, cholera morbus, and acute dyspepsia are ten times more frequent in July than in August, and the gluttons of the lower latitudes have to pay a proportionally heavier penalty. Luigi Cornaro, the Venetian reformer estimates that by dietetic excess alone, his next relatives had shortened their normal life-term some thirty per cent. His father, his uncle, his brother, and several of his cousins had all died before the attainment of their fiftieth year, while their philosophical relative died a week before the celebration of his hundredth birthday. To accomplish his purpose, he had, however, to restrict himself to a daily allowance of twelve ounces of solid food and fourteen of fluids, while several northern centenarians (Parr, Jenkins, Ivan Dapowski, etc.) though abstemious in the use of strong drink, were anything but sparing eaters.

Nearly every form of hereditary disorder assumes a more malignant form in the climate of the lower latitudes, and the history of superstition would almost tempt us to apply the same rule to certain moral and mental aberrations. Only under the influence of a torrid climate crimes against nature could be practiced in the name of religion (*vid. the ne-plus-ultras* mentioned in Letourneau's *Sociology*, pp. 64, 71 and 72), and only under the sun of the tropics credulity could degenerate into an actual love of the absurd for its own sake—a passion for portents redeemed neither by pathos nor fancy. The miracle legends of the north are mere trifles compared with the prodigies of the Mediterranean creeds, which in their turn are distanced by the limitless absurdities of the Hindoo scriptures. "Among an immense number of similar facts," says Henry Buckle, "we find it recorded that in ancient times the duration of the life of common men was 80,000 years, and that holy men lived to be upwards of 100,000. Some died a little sooner, others a little later; but in the most flourishing period of antiquity, if we take all classes together, 100,000 years was the average. Of one king, whose name was Yudhishtir, it is casually mentioned that he reigned 27,000 years, while another, called Alarka reigned 66,000. They were cut off in their prime, since there are several instances of the early poets living about half a million. But the most remarkable case is that of a very shining character in Indian history, who united in his single person the functions of a king and a saint. This eminent man lived in a pure and virtuous age, and his days were, indeed, long in the land, since, when he was made king, he was *two million* years old; he then reigned 6,300,000 years, having done which, he resigned his empire and lingered on for some 100,000 years more." (*History of Civilization*, p. 97.)

In the latitude of the North German woodlands, on the other hand, even the comparatively modest miracles of the trinitarian missionaries were accepted only under protest, and for nearly seven centuries a latent skepticism awaited the opportunity offered at last in the outbreak of the Protestant Revolt.

(To be continued.)

#### THE ETHICS OF LITERARY DISCUSSION.

The ethics of literary discussion can be expressed in one sentence: Let the search for truth be your supreme maxim to which all other interests must be subordinate and subservient. Controversies which (not unlike duels) are waged for mere personal matters, have either to conform to this ethical maxim, or if they do not, they will be recognized as downright unethical or at least non-ethical.

The following rules are derived from the ethical maxim of literary discussion:

Never defend an opinion which you do not believe yourself. Never accept a belief which is not demonstrable. You must not only be convinced that it is so, but your arguments must be strong enough to convince impartial readers.

Strength of argument rests on the following conditions:

1. The facts upon which it is based, must be well established.
2. These facts must cover the whole field, so as to be exhaustive as instances.
3. The reasoning must be logical.
4. The presentation of the argument must be lucid.
5. Your presentation cannot be lucid if you are not clear yourself. Accordingly, you must be ready to define every word you use.
6. Technical terms should not be employed unless their definitions are given.
7. Be careful that your words and especially your terms are used as they are commonly understood and not in a double or ambiguous sense.
8. Make the main points prominent and do not lose yourself in matters of detail, however interesting those details may be. They draw the attention of your readers and of yourself from the main subject.

These rules being observed, you can fearlessly await the most powerful adversary.

Before attacking the position of your adversary, try to understand his arguments from his standpoint. Acknowledge fully where your adversary is right.

Where he uses an ambiguous term, state plainly in what sense the term would be allowable.

This is a matter of justice due to your adversary. To show justice in this way is advantageous first, to your opponent, and then, perhaps in a higher degree, to yourself, and what is most important, to the



problem under discussion. It clears the situation and you thus limit the field of controversy to those points where you know your adversary to be wrong.

The points of agreement have become neutral ground which, it is true, your adversary can use for an honest retreat, if he chooses. However, his annihilation is not the object of the discussion, but the elucidation of truth. If he does not choose the chance of an honest retreat, his defeat will be the more inevitable, the more carefully the field of contest has been limited to his errors.

The weakness of an opponent is generally supposed to be the strength of his antagonist. This is utterly false. It must be a poor cause you defend, if it profits by the weakness of its adversaries. The strength of an adversary adds to your own strength if you defend a cause that is worth defending.

The weakness of an adversary lowers you down to his own intellectual weakness. Therefore, do not have any discussion with weak opponents, and if you cannot avoid an encounter, do not take advantage of their weakness. The common issue is lost sight of by abusing an adversary for his weakness, ignorance, or faults. Consequently, you being the stronger, the duty of helping and promoting your adversary devolves on you. This should be done without ado, simply by giving information.

If your adversary uses rude language or derogatory expressions, there is no need of following his example or of attempting to out do him. Either do not answer his rant at all, or if you cannot avoid giving an answer, ignore all personal disparagement and confine your comments to the cause at issue. If you adopt the railing method of your adversary, you lower yourself to his moral inferiority.

Never use sophisms.

Sophisms easily impose upon large masses, but they do not delude the few independent thinkers who are perhaps silent by-standers. The ultimate result has never as yet depended upon the masses who judge rashly, but upon the judgment of the few independent thinkers who judge slowly but in most cases justly.

Sophisms are dangerous to the parties who employ them; sophisms will ultimately fall back and harm their own inventor. By using sophisms you venture on untenable ground, there to plant your colors, and if your enemy is on the alert, you will lose not only the position but your colors also. Sophisms afford incidental and transitory advantages.

If your adversary by negligence shows a hidden weakness or is guilty of a self-contradiction, point it out to him, stating at the same time how he should have expressed himself from his own standpoint. If his negligence is merely carelessness of verbal expression, you have settled the point for good. However, if

the self-contradiction lies deeper, you have thus limited the field of discussion (as suggested above) to those points where the difference of the issues at stake will be seen to be primary and radical.

This always is the end toward which all honest and well directed discussion must tend. Even if the disputants can not gain the best of one another, their discussion must elucidate the problem about which the discussion is waged. The disputants must learn by their discussion in how far they agree and wherein their differences consist: whether it is only a difference of words (which happens much oftener than is generally imagined), or a material difference. If it is a material difference, we must find out by the discussion, whether the difference is fundamental, *i. e.*, whether the parties disagree because they start from different principles (which they have accepted as axioms) or whether it is a different interpretation of facts acknowledged by both parties, or whether one party takes its stand on facts which are not recognized by the other party as sufficiently established.

Whatever should be the result of a discussion conducted upon such ethical maxims, the discussion would never be entirely useless, but would be valuable in exact proportion to the issue at stake and the combined abilities of both opponents.

P. C.

#### ON THE LIFE AND LETTERS OF CHARLES DARWIN.\*

BY THE REV. H. R. HIGGINS.

The biography of Darwin affords a reasonable hope that, amongst the abundant and diversified materials therein contained, the key to his success may be found. Mr. Darwin himself thought so. He was at much pains to put on record his own habits and modes of thought, if they were at all likely to be of service to those who should follow him in the pursuit of truth.

Certain reminiscences he himself labelled "important." Two or three of these will be given from the *Autobiography*.

VOL. I. Dating from the Parallel Roads of Glen Roy, Mr. Darwin writes, p. 69:—

"Because no other explanation was possible under the then state of our knowledge, I argued in favor of sea action, *i. e.*, by the elevation and withdrawal of the sea, and my error has been a good lesson to me never to trust in science to the principle of exclusion."

Hasty and over-confident observers are apt to conclude that they know all possible causes for an event, and have only to choose between them. If, then, three or four causes, or apparently all but one, will not fit, they are quite positive the remaining one must be the right cause—there is nothing else left for it, so say they. This is the principle of exclusion, to which Mr. Darwin had learned never to trust in science; and it is the principle on which a well-known writer has built up man's pedigree, step by step, for twenty-three stages, from an Amoeba to the human race.

*Autobiography*, p. 87:—

"I had also, during many years, followed a golden rule, namely, that whenever a published fact, a new observation or a thought, came across me, which was opposed to my general results, to make a memorandum of it without fail, for I had found by experience that such facts and thoughts were far more apt to escape from the memory than favorable ones."

Perhaps this practice of itself might be sufficient to distinguish Mr. Darwin from ordinary men. We are surprised that there are

\* Read before the Literary and Philosophical Society in Liverpool, 1887-88.



not more scientific men doing Darwin's kind of work, but how few are ready to give the amount of respectful attention which he did, when facts occur opposed to the "general results" of their thoughts!

In *Reminiscences*, his biographer writes, p. 148:—

"There was one quality of mind which seemed to be of special and extreme advantage in leading him to make discoveries. It was the power of never letting exceptions pass unnoticed."

In Mr. Darwin's pursuit, biology, there is a strong tendency in exceptions to become excessively odious. We need not wonder that the naturalist who never blinked an exception was the one who took the lead in the pursuit after truth.

All these characteristics point to a man of iron determination, merciless to his own foibles. How strong in us are our scientific foibles, and how they beg and entreat to be spared! Few besides naturalists know how powerful is the *Σταγύη* of a scientific writer for the hypothesis over which he has brooded. Darwin was the man to sacrifice all this, thus becoming the man whom Nature hath delighted to honor.

Some of us, and I for one, hold that Darwin's fame would have been dearly bought had it been reached through the bondage of a heart of iron which knew no beat of tenderness nor anything of the throbbing of deep affection.

It was not so with Darwin. Kind-heartedness meanders, like a stream, through all his correspondence, and one brief word shall represent the feelings which dwelt in the home circle. *Reminiscences*, p. 134. The occasion was the death of his daughter, Annie:—

"We have lost the joy of the household and the solace of our old age. She must have known how we loved her. O, that she could now know how deeply, how tenderly, we do still love her dear joyous face! Blessings on her!"

The last of my little notices on Vol. I shall be assigned to Darwin's great work on the *Cirripedes*, the only monograph he wrote; and to this he devoted eight years of his life.

It was the admirable character of this monograph, and the excellence of its descriptions, which enabled me in 1880 to identify the nameless contents of a large box of *Cirripedes*, bought by me in London for the Liverpool Museum, with Darwin's own work. They turned out to be the duplicates of the "Beagle" collection, made by Mr. Darwin's own hands. As a relic, they are the greatest treasure we have in the Museum, and still seem to say—At this lowly group of animals DARWIN worked for eight years.

VOL. II. A distinction of no ordinary kind was conferred on the proposed life of Darwin, when Professor Huxley undertook to write in it a chapter on the "Reception of the *Origin of Species*."

The Professor would probably assert that more honor was reflected than conferred by his part in commemorating the life of one whom he ranks with Isaac Newton and Michael Faraday. But a large class of readers will find as much interest in observing the way in which the subject is now treated by Professor Huxley, as in learning the incidents of the struggle through which Darwinism became established.

No living man, more graphically than Huxley, could have described the tactics of the opposition, or enriched the narrative with more telling anecdotes; but whoever opens Vol. II, Chap. V, with the hope and expectation of finding stores of fresh materials for a damaging case against Mr. Darwin's opponents, may perhaps be disappointed.

Professor Huxley does not withhold his condemnation of such as would not fight fairly; but neither does he exult in magnifying the unworthiness of the combatants who were overthrown. Later on, in the same volume, occurs an account of the conflict waged at the Oxford Meeting of the British Association in 1860, between Professor Huxley and the Bishop of Oxford, on which memorable occasion the writer was present.

The narrative does not appear to be at all overdrawn, but the writer is glad to believe that a similar passage at arms could not

now occur, inasmuch as there is not a bishop on the bench who does not admit the necessity of treating the subject at least with grave respect.

A motto for this portion of the second volume of Darwin's life might read—Times are changed and we are changed with them. Thirty years ago evolution seemed to carry the black flag, bearing a death's head and crossbones. There is no longer any consistency in renouncing for evolution's sake all that chiefly makes man's life lovely and hopeful.

A deep impression is abroad, though somewhat silently entertained, that Christians and heathen, bishops and philosophers, are all sailing on the same bottom; and, to carry on the metaphor, that the most valuable and reliable seamen are not those who are the loudest renouncers of all old treatises on navigation, but such as do their utmost to make whatever is good and true in the old, work in with the new.

(To be concluded.)

## RICARDO ANTONIO PROCTOR

VIRO PRÆDITO VIRTUTE MNEMONYNON.

BY M. C. O'BYRNE.

The murmuring rill in ocean finds its death,

So glides man's life toward the gloomy portal:

Alas! how speedily of every mortal

The memory fades, as fades the parting breath.\*

To nobly live the sage's life resigned,

For human good its calm career pursuing,—

Or nobly die for man and man's well-doing,

Alike becomes and proves the generous mind.†

Inspired and cheered by all who knew its worth,—

The hope of fame with altruism blending,—

Such Proctor's life, whose all-unlooked for ending  
Awoke a chord of sorrow round the earth.

No fav'r'er he of mysteries profound;

His keen eye searched the cosmos to discover

His hidden meanings, while of Truth a lover

He scorned to feign when angry bigots frowned.

In him reviv'd, we saw the generous fire

That glowed in Bruno's gallant bosom burning;

From Falsehood's compromise with horror turning,

As Bruno spurned the cross from out the pyre.‡

Thrice noble Indagator! thou shalt live

In minds whose form is partly thine,—preparing

The way to "vaster issues," still declaring

The glory of the bounty God doth give.

God—the Eternal Order—Being—All:

Of whom we are, in whom we shall be ever;

Changing through all, but deviating never,

Though suns grow dark, men die, or sparrows fall.

\* φθὺν, τοῦ θανόντος ὡς ταχὺ τις βροτοῖς.

χάρης διαβήτης—Sophocles, *Ajax*, 1266-7.

† ἀλλ' ἢ καλῶς ζῆν, ἢ καλῶς τεθνηῆναι.

τὸν εὐγενῆ χροῖ.—*Ibid.* 479-80.

‡ In 1875, Mr. Proctor, upon being informed that certain of his scientific opinions and teachings were opposed to Catholic doctrine, unreservedly abjured and withdrew from the Roman Catholic Church. In 1878, when a well-known London minister alluded to the terrible loss of life resulting from the sinking of the *Princess Alice*, as an example of God's mercy to the survivors, Mr. Proctor and the writer of these lines entered forcible protests against such pulpit utterances. In one of his letters on this occasion, Mr. Proctor wrote thus: "No wonder clergymen complain that Atheism, or what they take to be Atheism, is spreading. Better a hundred-fold to believe in no God at all, than to believe in such a God as some of them picture to us."



## BOOK REVIEWS.

SILAS LAPHAM. *W. D. Howells*. Boston: Ticknor & Co.

The above publishing firm follow the paper edition of Mr. Howell's *Indian Summer* with the issue of Silas Lapham, in the minds of many the author's most powerful and successful book, which needs no word of comment or description here. The myriad readers of Mr. Howard's will be glad of the opportunity to secure a copy of this work in this cheap and available form. C. P. W.

A MEXICAN GIRL. *Frederick Thickett*. Boston: Ticknor & Co.

A story something like those of Bret Harte in *local*, dealing with the picturesque scenery and events found on the Mexican coast, but possessing a moral purpose, and written in an earnest, elegant style that far outruns the somewhat hackneyed products of the first author's pen. Mr. Thickett's descriptive writing is very good, his analysis of character excellent, and portrayal of struggling human emotions and passions most vivid and effective. C. P. W.

AULNEY TOWER. *Blanche Willis Howard*. Boston: Ticknor & Co.

Miss Howard is known as a writer who has done some very good work, and some of a rather indifferent order. Aulney Tower is a fairly good story, both from the point of view of plot and execution. It deals with the fortunes of a decaying Legitimist family on the border line between two hostile nations during the Franco-Prussian war. The motive of the story is found in the struggling emotions of love and patriotism in the heroine, who presents the type of a noble, refined, courageous womanhood. Some of the minor characters in the book are also well conceived and wrought out. C. P. W.

ESSAYS ON GOD AND MAN; OR, A Philosophical Inquiry into the Principles of Religion. *Rev. Henry Thore Bray*, M. A., B. D., LL. D. Rector of Christ Church, Boonville, Mo. St. Louis: 1888. Nixon-Jones Printing Co.

The scholarly author is a most radical rector of a Christian church; hold in his thought and accepting its consequences. He proves that God is immanent in the Universe, that the Bible, as the other bibles in the world, is, in the highest sense, but the history of the attempts of the people to express the impression made on the mind by God immanent in nature. The author does not penetrate to Monism; he remains satisfied with "some reasons in proof of the immortality of the soul" instead of solving the problem by plainly showing what is immortal and what is perishable in man. The immanent immortality of Monism has been discussed in an editorial of No. 25, of THE OPEN COURT.

The book is full of pertinent quotations from all sources. They form in themselves an interesting collection, but we must confess that they are so numerous that sometimes the author himself is entirely lost sight of.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

## CHAPTER XXXII—Continued.

The actress fondled the dog in her arms.

"The rogue is very much spoilt; he creeps into my muff when I go to the theatre, and I am obliged to take him with me. I was lately frightened to death on his account; for once, while I was lamenting as Clara among the citizens, Billy had run out of the green-room and, standing between the curtains, began to wag his tail and caper about on his hind legs."

"That must have been very pathetic," said Mrs. Hummel.

"I moved about more than usual," replied the act-

ress, "and at every turn in the scene I had to call out, 'Lie down, Billy.'"

"Excellent," nodded Mr. Hummel; "always presence of mind."

"To-day I am thankful to the naughty little creature, though," continued the actress, "for he has afforded me the opportunity of making the acquaintance of my neighbors. Mr. Hummel, I believe?"

Mr. Hummel bowed awkwardly. The actress turned to the ladies with a bow, and the latter answered her greeting silently.

There was much in the lady that pleased Mr. Hummel. She was pretty, had a gay and cheerful countenance, and wore something on her bonnet with which he was personally acquainted. He therefore moved a chair towards her and said, with another bow:

"Will you not have the kindness to take a seat?"

The actress bowed in accepting it, and, turning to Laura, said:

"I rejoice to be able to approach you at last. You are no stranger to me, and you have often given me great pleasure, and I am glad to be able to-day to thank you for it."

"Where was it?" asked Laura, embarrassed.

"Where you would certainly never have thought of it," replied the other. "I have keen eyes, and over the footlights I observe the face of every spectator. You cannot imagine how painful that is to me sometimes. As you are always in the same seat, it has often been a great pleasure to me to rest my eyes on your features and observe their interested expression; and more than once, without your knowing it, I have acted for you alone."

"Ha!" thought Laura, "it is Venus." But she felt a chord had been struck which gave out a pure tone. She told the actress how unwillingly she missed any of the plays in which she acted, and that in their house the first question, when they received the new bill of the play, was whether the lady was going to act."

This gave the mother an opportunity of entering into the conversation. The actress spoke warmly of the kindness with which she had everywhere been received. "For the greatest charm of our art is the secret friends that we gain by our acting—people whom otherwise one perhaps never sees, whose names one does not know, yet who take an interest in our life. Then, if by accident one becomes acquainted with these kindly strangers, it is a rich compensation for all the sufferings of our vocation, among which the intrusive homage of common persons is perhaps the greatest."

It was clear she could not reckon the homage of the Doctor among these sufferings.

While the ladies were thus talking together, and

\* Translation copyrighted.



Mr. Hummel listened with approbation, some gentlemen approached the table. Mrs. Hummel politely greeted the second tenor, who had once sung for her at the godmother's house, and the worthy father of the stage, who knew Mr. Hummel at the club, began a conversation with him concerning the building of a new theatre. On this subject Mr. Hummel had, as a citizen, a very decided opinion, in which the worthy father quite agreed.

In this way the two parties mingled together, and the table of Mr. Hummel became a centre round which the children of Thalia thronged. While the actress was talking with Mrs. Hummel in a very creditable and domestic manner of the inconveniences of her dwelling, Laura glanced at the Doctor. He was standing some steps from the party, leaning against a tree, looking thoughtfully before him. Laura suddenly moved towards him, and began speaking rapidly: "My father has offended you. I beg your forgiveness."

The Doctor looked up. "It does not pain me," said he, kindly; "I know his way."

"I have talked to her," continued Laura, with trembling voice; "she is clever and amiable, and has an irresistible charm of manner."

"Who?" asked the Doctor; "the actress?"

"Do not attempt concealment with me," continued Laura; "that is unnecessary between us; there is no one on earth who wishes for your happiness more than I do. You need not trouble yourself about others shaking their heads; if you are sure of the love of the lady, all the rest is a secondary consideration."

The Doctor became more and more astonished. "But I do not wish to marry the lady."

"Do not deny it, Fritz Hahn; that ill becomes your truthful nature," rejoined Laura passionately; "I see how well the lady suits you. Since I have seen her, I feel convinced that she is capable of appreciating all that is good and great. Do not hesitate, but venture courageously to seek her heart. Yet I am so troubled about you, Fritz. Your feelings are warm and your judgment sound, but you cling too firmly to that which surrounds you. I tremble, therefore, lest you should make yourself unhappy by not deciding at the right moment upon a course which will appear strange to your family. I know you from my early childhood, and I am sure that your danger always has been to forget yourself for others. You might pass a self-sacrificing existence, which I cannot bear to think of. For I desire that all happiness should be your portion, as your upright heart deserves." Tears coursed down her cheeks, as she looked lovingly upon him.

Every word that she spoke sounded to the Doctor like the trilling of a lark and the chirrup of the cricket. He spoke softly to her: "I do not love the lady; I have never thought of uniting her future with mine."

Laura drew back, and a bright color suffused her face.

"It is a passing acquaintance, nothing more either for her or me; her life belongs to art, and can hardly adapt itself to quiet domestic habits. If I could venture to seek a heart for myself, it would not be hers, but that of another." He looked towards the table, from whence at that moment there came a loud laugh, evidently of Mr. Hummel, and spoke the last words so low that they scarcely reached Laura's ear, and he looked sorrowfully down on the buds of the elderbush in which the young blossoms still lay hidden.

Laura stood motionless, as if touched by the wand of a magician, but the tears still continued to flow down her cheeks. She came very near touching to her lips the cherry of her philopena legend.

Then the merry cockchafters hummed round her, the actress nodded smilingly to her, and her father called her:—the fairy tale was at an end. Laura heard the actress say triumphantly to the Doctor, "He offered me a chair, he is no growling bear after all. And he was so kind to Billy."

When Fritz returned home, he threw off his hat and overcoat, rushed to his writing-table, and took up the little letters in the unknown hand. "It is she," he cried, aloud, "fool that I was to doubt it for one moment." He read all the letters again, and nodded at each. It was his own high-minded, noble maiden who had before disguised herself, now she had shown herself to him as she really was. He waited impatiently for the hour when he should meet her at their friend's. She entered late, greeted him quietly, and was more silent and gentle than usual. When she turned to him she spoke seriously, as to a trusted friend. Her quiet composure became her well. Now she showed herself to him as she was, a refined mind full of true enthusiasm. Prudery and sportive moods had only been the shell that had concealed the sweet kernel. The unassumed caution, too, with which she concealed her feelings among her friends, delighted him. When the next ballad should come, then she would speak to him as she felt, or she would give him permission to write openly to her. The next morning the Doctor counted the minutes till the arrival of the postman. He tore open the door and hastened to meet the man. Fritz received a letter, he broke the cover impatiently, there was not a line from his correspondent; he unfolded the old printed sheet, and read the words of a coarse bacchanalian ditty:

"On the spit with ox and pig,  
Clear the green for reel and jig,  
Wine and rhyme and wassail-shout,  
Pass the flowing bowl about!"

So the honest, simple-minded Doctor asked again: Is it she? or is it possible that it is not?

(To be continued.)



## NOTES.

The *Revue Philosophique* for September contains an essay by A. Binet on Moral Responsibility.

The best text book for English readers to study Kant is, to our knowledge, Prof. John Watson's recently published work, *The Philosophy of Kant, as Contained in Extracts from his own Writings*. New York: 1888. MacMillan & Co. The book will soon be reviewed in our columns.

Prof. Thom. H. Jappe, of Davenport, in No. 16 of *The Lehrer Post*, Milwaukee, urges that the instruction of German should be obligatory in all schools, not for the reason that there are so many Germans in this country but because it is the most important language to an English speaking race. In all higher schools, Mr. Jappe says, Latin and German should be obligatory.

"*Wit and Humor: Their Use and Abuse*," by Wm. Matthews, LL. D., is announced for immediate publication by S. C. Griggs & Co., Chicago. Prof. Matthews is one of the most widely read of modern authors. His "Getting on in the World" has had an enormous sale. His books are always strongly characteristic, and few writers have a happier faculty of combining entertainment and instruction.

Suggestibility is by no means peculiar to hypnotized persons. Almost every one is sensitive to suggestion to a certain extent when awake, for in every human being, no matter how skeptical he may consider himself, there exists a certain degree of credulity, and this credulity may be played upon and taken advantage of in a measure. Children can be made to believe the most preposterous statements if they are made with sufficient gravity.—[From "Hypnotism: What it is and what it is not," by Dr. CHRISTIAN A. HETTER, in the *Popular Science Monthly* for October.]

A powerful agitation has been started in Germany for modernizing the school system. Prof. W. Preyer has taken a prominent part in the discussion of this subject by publishing a pamphlet "*Naturforschung und Schule*," which denounces the errors of the old scholastic methods and proposes a new plan which will conform to the requirements of science. Prof. Preyer in a private letter informs us that "Dr. Hugo Göring, a man of extraordinary energy intends to found a school on the principles of Biology in Berka on the Werra." Prof. Preyer adds, and we believe he is right, that "America would be a better field for such a school than Germany." We therefore call the attention of those interested in the progress of educational institutions to this new movement in Germany.

## FORMER CONTRIBUTIONS TO "THE OPEN COURT."

W. D. GUNNING.

Mr. W. D. Gunning's essay *Katzenjammer*, in No. 1, is a sprightly, half humorous, half serious lay sermon, sending shafts of light into the dark recesses of the mind. Katzenjammer is a German word, which means cat-sickness, and denotes a malady of body and mind which results from night-life. The owl, the night-hawk, the whip-poor-will and all the felines are night-prowlers. Men also have gone astray with the cats and become nocturnal; even Socrates, with all his virtues was somewhat addicted to Katzenjammer. Katzenjammer was a large factor in the decline of Athens and the chief factor in the fall of Rome. What a Katzenjammer's-band was that of Cataline! What Katzenjammer was that of Nero fiddling in the light of burning Rome! Struggle for life drove one member of a certain family higher into the air, and another into the ground. The sun-seeker gained in eye and brain, the earth-burrower lost its eyes and retained only brain enough to guide it through the ground. Such are the fates of the mole and the bat. Igdrasil the tree of life has been pushing its human fruit inward to the shade. We want a peripheral humanity lit by beams of science and sweetened and mellowed by active rays of the sun of righteousness.

WILLIAM J. POTTER.

In the leading essay of No. 1, Mr. Potter discusses the question of the relation of individual existence to the aggregating power and well being of society. Nature in this matter should be our teacher, and the spinal world-plan of nature is the method of differentiation. It is a process of concentrating the forces of existence which is done through the process of self-preservation. This principle of selfism is means only, not an end. Without it there would be stagnation, but the individual organism does not exist for its own sake. Nature's aim is higher, broader, richer life. The end of individual existence is the common good, the general well-being, and here is where the law of ethics and the obligations of religion bear upon social problems. Individual self-interest and enterprise only furnish the rough materials for the meliorations which mark the progress of the higher civilization.

E. P. POWELL.

The American scholar, E. P. Powell, gives his views on "Language" in Nos. 24 and 26. He maintains that language, as a means of communication, is possessed by all the animal creation, even down to the lowest in the scale of being; that all communicate with one another; that all of them have a language to express their wants and especially to express hunger. This lies at the root of the principle of evolution, because "organic development is necessitated in the direction of organic power to express—to speak."

GEN. M. N. TRUMBULL.

In No. 25 Gen. Trumbull has an article on "The Value of Doubt in the Study of History." He shows the tendency of historic writing toward exaggeration and falsehood; and he advises teachers to strengthen the minds of pupils by the exercise of doubt. Much of the history of the late war as written by our famous generals is as fabulous as the legend of Romulus and Remus. It is written by men interested in their own story, and therefore it comes under the suspicion cast upon it by the ordinary rules of evidence. "This war history," says Gen. Trumbull, "is woven out of camp-fire yarns." "Like the feet of Chinese children," he says, "our minds were crippled in infancy, and many of them have been lame ever since. They are not as useful to us as they would have been if strengthened in infancy by the exercise of doubt."

EWALD HERING.

Nos. 22 and 23 contain a very eloquent article on "The Specific Energies of the Nervous System," by Dr. Ewald Hering, Professor of Physiology at the University of Prague. His useful additions to physiological science are enumerated in the *Encyclopedia Britannica*, under the heading of "Physiology." Several pages of the *Encyclopedia* are devoted to Dr. Hering. His discoveries make an era in physiological study, and we remind our readers of his learned and instructive essay on "Memory," published in Nos. 6 and 7 of THE OPEN COURT.

Dr. Hering's article on the "Specific Energies of the Nervous System," while profound in argument and full of information in its details, is at the same time so simple in statement and so easily understood that the reading of it is a pleasure as well as a study. Such articles enable us to see farther into Nature than we formerly did, and they reveal to us that her "specific" work is much of it so delicate and fine that the most powerful microscope cannot make it visible to the material eye of man. Throughout the essay the following proposition is maintained: "The germs of each animal species possess an inherent and innate faculty, viz: a specific energy which directs its development in a manner characteristic to this animal and no other. Again, each single germ possesses an individual energy which, in addition to the normal features of its species, secures an individual character to its future development."



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## Recent Contributions to 'The Open Court.'

DRUMMOND'S NATURAL LAW IN THE  
 SPIRITUAL WORLD.

JAMES HERBIN.....In No. 56.

An instructive criticism of a book "that has cre-  
 ated a sensation in certain orthodox circles, and  
 which, when superficially considered, has the ap-  
 pearance of substantiating certain Christian dog-  
 mas by scientific analogies." Mr. Herbin points  
 out the inconsistencies resulting from the further  
 development of Drummond's doctrines and men-  
 tions several natural principles which were not ad-  
 mitted into the analogy.

REMINISCENCES OF MR. ALCOTT'S CON-  
 VERSIONS.

MRS. EDNAH D. CHENEY.....In Nos. 49 and 50.

In Nos. 49 and 50 THE OPEN COURT publishes a  
 paper upon Mr. Alcott's conversations, read by Mrs.  
 Ednah D. Cheney before the Memorial Meeting of  
 the Concord School of Philosophy. Mrs. Cheney's  
 recollections of Mr. Alcott lead us back as far as  
 the year 1840. The reminiscences cover almost a  
 half a century of Mr. Alcott's intellectual life.  
 Abstracts are given of his conversations, incidents  
 described in which noted contemporaries figured,  
 and anecdotes told illustrative of Mr. Alcott's life  
 and thought.

Wheelbarrow, in No. 52, contributes an addi-  
 tional reminiscence of this "amiable philosopher  
 and venerable man."

ETHICS AND PUBLIC LIFE.

W. M. SALTER.....In No. 45.

The well-known lecturer of the Society for Ethical  
 Culture in Chicago bravely probes the wounds of  
 our public life and shows his patriotism by boldly  
 denouncing the evils and wrongs of American poli-  
 tics. But he is no pessimist; he does not despair of  
 improvement and progress. He knows very well  
 that men "of Roman virtue" still exist. Mr. Salter  
 wants to elevate our conception of politics, so that  
 the best men in the community would lose their re-  
 spondence to public life; that they would enter it  
 once more to make it great and illustrious.

THE FIELD-INGERSOLL CONTROVERSY

An editorial discussion of the Field-Ingersoll  
 Controversy and of Mr. Gladstone's Remarks upon  
 the same, will be found in Nos. 43 and 44. The  
 questions and issues involved are treated from an  
 independent and impartial standpoint. The inef-  
 ficacy of Agnosticism to approach a solution of the  
 religious problem is shown; Agnosticism being but  
 a negative view of the world. The true position  
 and significance of both parties in the development  
 of the religious idea are pointed out and each is re-  
 cognized as important and necessary to the ultimate  
 synthesis of religious truth, a religion which will in  
 clude what is good in all.

THE FUNDAMENTAL PROPERTIES OF  
 MATTER.

J. G. VOGT.....In Nos. 29, 31, and 34.

To the kinetic conception of the world's mecha-  
 nism Vogt opposes his hypothesis of a continuous  
 world-substance completely filling space and whose  
 sole manifestation of power consists in contraction  
 or condensation. He claims that the kinetic or me-  
 chanical theory, which explains organized and spiri-  
 tual phenomena from inelastic atoms and a pur-  
 poseless force, is untenable; and that pseudo-mo-  
 nism, which transforms the most complex conditions  
 and processes of psychical life into the elementary  
 substance itself, involves the fallacy of idealism  
 and dualism. As opposed to both views Vogt pro-  
 pounds his conception, which he calls Monism of  
 Reality. He attributes to matter two fundamental  
 properties, motion and sensibility, and deduces  
 from these elementary properties the higher phe-  
 nomena of intellectual life.

ECONOMIC CONFERENCES.

WHEELBARROW.....In Nos. 37, 40, and 47.

The Economic Conferences of Chicago may be  
 hailed as a significant indication of a breach in the  
 barrier between Labor and Capital. The confer-  
 ences have served as a medium for the open ex-  
 change of opinion, where both sides are fairly rep-  
 resented. Wheelbarrow's criticisms are acute and  
 pithy, and merit a careful perusal. The author  
 unites Old Saxon simplicity, sincerity of heart, the  
 truthfulness of honesty and warm sympathy for  
 justice and right.

WHAT MIND IS.

PROF. E. D. COPE.....In No. 40.

THE NATURE OF MIND.

BY THE EDITOR OF THE OPEN COURT, No. 40.

Professor Cope gives in clear and comprehensive  
 outlines his view of mind; he opposes Materialism  
 and Dualism, stating that "the situation is mono-  
 nistic." However, "as the amount of thought can  
 most assuredly be measured, but the quality of  
 thought can not," the eminent American scientist  
 concludes that "consciousness has a field of its own  
 where it ranges free from the bonds of energy." The  
 directive element (will and mind) is qualitative  
 not quantitative and controls the movements of the  
 non-mental environment. "This statement may be  
 called occultism," Prof. Cope adds, "and I sup-  
 pose justly. But such is the fact."

In opposition to Prof. Cope, the Editor explains  
 his view of mind. The qualitative faculties are a  
 matter of form. Form is the essential character-  
 istic of mind, and a superior mind indicates a su-  
 perior form of brain structure. Form is an abstrac-  
 tion from reality and has by itself no efficacy.  
 Mr. Ribot, the founder of the French school of ex-  
 perimental psychology, is quoted in support of the  
 fact that consciousness by itself is not an effective  
 factor in the motion of our limbs. "The conscious-  
 ness of mental states may be indispensable for a  
 proper direction of our will, but it does not possess  
 motive power. Prof. Cope's view is considered in-  
 consistent because leading to dualistic statements  
 and to occultism."

A letter from Prof. E. D. Cope, which has re-  
 ference to this discussion, is published in No. 42.

PLANTATION FOLK-LORE.

L. J. VANCE.....In Nos. 41, 45, and 46.

Mr. Vance reviews and discusses the movement  
 and widespread interest in popular tales which has  
 produced the recent collections of Negro Myths  
 by Joel Chandler Harris ("Uncle Remus") and  
 Mr. Charles C. Jones. These tales form an im-  
 portant addition to the Folk-Lore of the New World,  
 and Mr. Vance's review will be welcomed by all  
 who wish to acquire a comprehensive estimate of  
 the significance of these Myths to comparative lit-  
 erature and the science of comparative ethnology.

THE ANIMAL SOUL AND THE HUMAN  
 SOUL.

CARUS STERNHEIM.....In Nos. 37, 41, and 45.

An essay full of fine thought and psychological  
 depth. Carus Sternheim understands to follow a  
 subject as historically developed in the realm of  
 human opinion and as ultimately affected by the  
 light of Modern Science. The question of the re-  
 lation of the animal to the human soul has ever  
 been of interest and in this essay we find it attrac-  
 tively yet accurately treated.

DETERMINISM VERSUS INDETERMINISM.

PROF. GEORGE VON GIZYCKI.....In Nos. 25 and 26.

Georg von Gizycki is Professor of Philosophy at  
 the University of Berlin. His name is well known  
 beyond the boundary of his country. The problem  
 of the Freedom of the Will has perhaps never been  
 treated in a clearer and more forcible manner. Con-  
 tributions on the same subject have been published  
 from E. P. Powell and Xenos Clark.



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No. 58. Vol. II.—32.

CHICAGO, OCTOBER 4, 1888.

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FORMER CONTRIBUTIONS TO "THE OPEN COURT."

PROF. E. D. COPE.

In Number 23 Professor E. D. Cope treats of "Evolution and Idealism," and finds in the evidence of evolution the refutation of the doctrine of idealism. He concedes that much of what we consider the objective world is unreal and has no existence, except, as we perceive it, like the snakes, for instance, to the victim of *delirium tremens*; and he agrees that "the properties of matter" owe much of their character, and even their existence, to our senses, which give matter all its qualities, or, at least, modify and change them according to the number of our senses and their ability to perceive. Yet, for all that, he says: "If a given supposed object be purely a mental state on the part of the subject, a rational cause for the production of that state is wanting."

With great self-confidence, Professor Cope says: "Evolution gives the *coup de grace* to idealism of the consistent type. In the gradual unfolding of organic life it sees the two universal facts, subject and object. It sees them interact and influence each other," and further on he says: "It is equally competent for the materialist to deny the existence of mind as for the

idealist to deny the existence of matter. The materialist beholding the imperfection of the senses may pronounce them to be, one by one, incompetent witnesses, and declare them to be illusions. But the fact is, both exist, object and subject, matter and mind."

W. D. GUNNING.

Mr. W. D. Gunning's essay *Katzenjammer*, in No. 1, is a sprightly, half humorous, half serious lay sermon, sending shafts of light into the dark recesses of the mind. Katzenjammer is a German word, which means cat-sickness, and denotes a malady of body and mind which results from night-life. The owl, the night-hawk, the whip-poor-will and all the felines are night-prowlers. Men also have gone astray with the cats and become nocturnal, even Socrates, with all his virtues was somewhat addicted to Katzenjammer. Katzenjammer was a large factor in the decline of Athens and the chief factor in the fall of Rome. What a Katzenjammer's-band was that of Cataline! What Katzenjammer was that of Nero fiddling in the light of burning Rome! Struggle for life drove one member of a certain family higher into the air, and another into the ground. The sun-seeker gained in eye and brain, the earth-burrower lost its eyes and retained only brain enough to guide it through the ground. Such are the fates of the mole and the bat. Igrasil the tree of life has been pushing its human fruit inward to the shade. We want a peripheral humanity lit by beams of science and sweetened and mellowed by active rays of the sun of righteousness.

WILLIAM L. POTTER.

In the leading essay of No. 1, Mr. Potter discusses the question of the relation of individual existence to the aggregating power and well being of society. Nature in this matter should be our teacher, and the spinal world-plan of nature is the method of differentiation. It is a process of concentrating the forces of existence which is done through the process of self-preservation. This principle of selfishness means only, not an end. Without it there would be stagnation, but the individual organism does not exist for its own sake. Nature's aim is higher, broader, richer life. The end of individual existence is the common good, the general well-being, and here is where the law of ethics and the obligations of religion bear upon social problems. Individual self-interest and enterprise only furnish the rough materials for the meliorations which mark the progress of the higher civilization.

GEN. M. M. TRUMBULL.

In No. 25 Gen. Trumbull has an article on "The Value of Doubt in the Study of History." He shows the tendency of historic writing toward exaggeration and falsehood; and he advises teachers to strengthen the minds of pupils by the exercise of doubt. Much of the history of the late war as written by our famous generals is as fabulous as the legend of Romulus and Remus. It is written by men interested in their own story, and therefore it comes under the suspicion cast upon it by the ordinary rules of evidence. "This war history," says Gen. Trumbull, "is woven out of camp-fire yarns." "Like the feet of Chinese children," he says, "our minds were crippled in infancy, and many of them have been lame ever since. They are not as useful to us as they would have been if strengthened in infancy by the exercise of doubt."

E. P. POWELL.

The American scholar, E. P. Powell, gives his views on "Language" in Nos. 24 and 26. He maintains that language, as a means of communication, is possessed by all the animal creation, even down to the lowest in the scale of being; that all communicate with one another; that all of them have a language to express their wants and especially to express hunger. This lies at the root of the principle of evolution, because "organic development is necessitated in the direction of organic power to express — to suck."



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## THE PSYCHIC LIFE OF MICRO-ORGANISMS.

BY A. BINET.

Translated from the "*Revue Philosophique*" by uspc.\*

PART VII.

VI.

It is difficult in the extreme to mark out the lines of a psychology of Proto-organisms from data so incomplete as those we have just collected. We shall content ourselves with a few brief considerations.

The apparent result of our investigations up to this point is, that the greater number of movements and actions observed in Micro-organisms are *direct* responses to excitations emanating from the medium in which they live. It is the condition of the medium that, to all appearance, rigidly determines the character and manner of their activity; in a word, they exhibit no marks of pre-adaptation.

But it will not do to let the matter rest with this general survey of the subject; we shall have to examine more closely each detail of these reflex actions of adaptation, beginning with the sensory phase and ending with the motory phase. Analysis discloses that several determining elements may be distinguished in these phenomena; they are:

1. The perception of the external object;
2. The choice made between a number of objects;
3. The perception of their position in space;
4. Movements calculated, either to approach the body and seize it, or to flee from it.

We are not in a position to determine whether these various acts are accompanied by consciousness or whether they follow as simple physiological processes. This question we are obliged, for the present, to forego.

1. *The perception of an external body.* Among the lowest forms, it appears that perception is always the result of a direct irritation produced by contact of the external body with the protoplasm of the animalcule. This is what takes place, to all appearance, among the *Amœbæ*; for these organisms, the condition necessary to the perception of a solid particle is contact with it. A step forward has been effected in those organisms that are able to perceive external objects by contact from a distance, as is observed for instance in the *Actinophrys*, which perceives all bodies that chance to touch its long filamentous pseudopods; yet, in this in-

stance, the pseudopod merely acts the part of an extended tactile organ. The vibratile cilia, and still more the long lash of the Mastigophores, enable the animal to discern the presence of contiguous particles at a certain distance from its body, by the pressure exerted upon their appendages. It is not known whether there are many animalcula that perceive the presence of nutriment from a distance and without coming in direct contact with it; it appears, however, that this is the case with the *Didinium* which shatters its prey from a distance and without touching it.

2. *Choice.* We have seen that Micro-organisms do not absorb indiscriminately every solid particle they meet. They exercise a choice. Among the lower species, the choice is in the lowest degree rudimentary; the organism restricts itself to a discrimination of mineral particles, sand for example, from organic substances; it rejects the former and absorbs the latter. Among the higher animalcula the choice is more intelligent. There are Infusoria that feed only upon plants and animals. There are also those which feed exclusively upon one species.

This exercise of choice is one of the most incomprehensible of phenomena; it is exceedingly difficult to explain it without resort to anthropomorphism. If we hold to what observation directly teaches us, the choice may be said to consist in the following acts: when the animalcule perceives certain kinds of substances and particularly those substances which serve it as customary food, it invariably goes through the same movement, which consists of an act of prehension; when the substance touched, seen, or collided with, as the case may be, is of another kind, the Micro-organism does not go through this act. Such is the phenomenon; as to the explanation of the same, we are unable to give one.

According to M. E. Maupas, if certain Infusoria feed exclusively upon a certain species, it is because their buccal apparatus, or organ of prehension, makes it impossible for them to feed upon different species which possess different tegumentary envelopes. The question is to ascertain whether this explanation is applicable only in certain cases, as appears very probable to us, or whether, on the other hand, it is of complete and universal applicability. We confess that the hypothesis of M. Maupas does not explain to us

\* Translation copyrighted.



why a hunter Infusory that throws trichocysts, like the *Didinium*, attacks the *Paramecium aurelia* and not the *Paramecium bursaria*.

It is possible that certain species attract the organisms which feed upon them, by means of a physical or chemical excitation.

The researches of Prof. Pfeffer, of the, Tübingen Botanical Institute, lend a certain confirmation to this hypothesis.\*

3. *Calculation of the position occupied by the external body.* It is a universal fact that Micro-organisms not only perceive external bodies, but that they also indicate, by their movements, an exact knowledge of the position occupied by these bodies. It might be said that they invariably possess a sense of position in space. The possession of this sense is absolutely indispensable to them, for it does not suffice them to know of the presence of an exterior body in order to approach it and seize it; they must furthermore know its position, so as to direct their movements accordingly.

The simplest form of a sense of localization is met with in the *Amœba*, which, when it closes about a nutritive particle, always emits its pseudopods at precisely that part of its body where the foreign substance caused the irritation. The most complicated instance of localization is met with in the *Didinium*, which we have so often cited; the *Didinium* knows precisely the position of the prey it follows, for it takes aim at the object of its pursuit like a marksman, and transpierces it with its nettle-like darts. Between these two species, we find all the intermediate instances of a localization of perceptions.

However, doubts exist upon the question as to whether Proto-organisms know the direction and distance of external bodies, or whether they only succeed in getting at them after a series of tentative movements. The observations which we have collated do not solve the question.

4. *Motory phase.*—We now pass to the motory phase. The movements made by Micro-organisms as if in response to an excitation, are not in most instances simple reflex motions; they are movements adapted to an end. We cannot repeat it too much: these movements are not explained by the simple phenomenon of cellular irritability.

In the very first instance, they vary according to the excitation; a given excitation produces a corresponding motory response; a body situated at the right does not bring about the same movement that a body situated at the left does; a particle of the nutritive sort does not provoke the same course of action that

a particle of a different sort does. All this implies that associations have been established in the protoplasm between certain excitations and certain movements. The explanation of the physical nature of these association appears to us totally impossible.

The quite ingenious ideas broached by Spencer upon the lines of least resistance offered by the commissural fibres cannot be applied here, since everything takes place in a single cell. What would be necessary to explain is how and in consequence of what mechanism of structure one form of molecular movement, corresponding to a given excitation, is followed by a certain other form of molecular movement corresponding to an act likewise determined.

REMARK.—The weekly publication of M. Binet's articles closes with this number. The concluding parts, as published in full in the *Revue Philosophique*, will appear with those already given to the public in pamphlet form during the present month. The whole will include the important and interesting subdivisions on "Fecondation" and the "Physiological Function of the Nucleus."

### WHEN IS HOMICIDE JUSTIFIABLE?

BY CHARLES K. WHIFFLE.

The hanging of the Anarchists in Chicago has brought up anew before the community the question of capital punishment; first, as to its rightfulness, next, as to its expediency. Of course, this, like all other questions, must continually come up for reconsideration until it is settled in the right way; and until such settlement is obtained, we must compare different opinions, with the reasons for them. I, therefore, will give my opinion; quoting one case of actual occurrence in which the deliberate taking of human life seems to me right and expedient, and another which appears to me unjustifiable, and also specially injudicious.

It is admitted that the people called "Border Ruffians" in Kansas, in 1856, were brutal and violent men, sent by Missouri slaveholders into Kansas, first to drive away or kill the Abolitionists there, then by illegal votes and the use of armed force against the legitimate voters to establish a nominal government, proslavery in character and ready to assist their outrages, and finally to make Kansas a Slave State. It is admitted that they did commit many murders and other acts of violence, that by giving illegal votes, and by killing or violently driving away legitimate voters, they did succeed in forming a pretended State government which upheld and assisted their lawless proceedings, and that they openly declared their determination to persist in that course. And it is further admitted that the United States' government, Franklin Pierce of New Hampshire being President, favored and actively aided the policy above described.

The people of Kansas and the immigrants there from New England were peaceful, law-abiding men, who had long borne outrages from the emissaries of

\*Lac of space prevents us from developing this hypothesis more at length. I shall recur to the question later on, when the present articles are in final form.



slavery with patience, and who, when driven to take arms in self-defence, were outnumbered by brutal and desperate men. What next were they to do? There was neither Town, nor State, nor National Government to appeal to. All the authorities supported the slaveholders and their policy.

It is also admitted that the Border Ruffians, being undoubted and atrocious criminals, would have suffered capital punishment under the laws of any of the Free States. Their proceedings were not only illegal and immoral, but also cruel and brutal. Yet they declared their determination to continue them until Kansas was made a Slave State; and all the authorities of State and Nation were on their side. What was to be done?

The Free State men saw that it was useless to fight against superior and increasing numbers, with the prospect not only of massacre for themselves and their families, but of inevitable triumph for the slave power. They could not bear the thought of fleeing from the State; and thus sacrificing both their property and their cause, the cause of freedom in Kansas. What was to be done?

The course of justice in any of the Free States would have been to seize and imprison those murderers, bring them to court for trial, and hang such of them as were proved guilty. But in Kansas neither court nor prison was within reach of the opposers of slavery. The law-abiding Free State men were at their wit's end. No refuge seemed left, either for themselves or their cause. Justice, in her ordinary form of law, sheriff, court, and prison, was not there. But, most fortunately, justice in the shape of opposers of slavery *was* there; and some of those men promptly did what justice manifestly demanded, and what her ordinary forms would have done more slowly had they been accessible.

In May, 1856, the leaders of the Free State men obtained sure information that certain of the Border Ruffians, residing on Pottawatomie creek, near which John Brown lived, had lately been in Missouri, and had succeeded in raising forces to expel or murder the Browns and other prominent opposers of slavery. These leaders then held a consultation and determined that on the first indication of attack by the persons in question, namely, the Doyles, Wilkinson, and Sherman, they should be seized and summarily put to death.

On the 24th of May, four days after the sacking of Lawrence, a brutal assault was committed on an abolitionist at the store of Sherman, in which the Doyles participated. These wretches on the same day called at the houses of the Browns, and both by word and act offered the grossest indignities to the women there, saying, as they left: "Tell your men that if they don't

leave right off, we'll come back to-morrow and kill them." Some of the Free State men, being thus forewarned, on the night of May 24th seized and put to death the persons above named, thus giving check to the process of pro-slavery outrage by removing its leaders.

This seizure and execution were charged upon John Brown. In a Memoir of John Brown carefully compiled from all available sources, Dr. Richard D. Webb, the author, said:

"Brown was at Middle Creek that night, twenty-five miles away, and did not know what had occurred till next day; nor were any of his sons present. When accused of personal participation in the deed, he flatly denied the charge. But, remember, added he, I don't say this to exculpate myself; for, although I took no hand in it, I would have advised it had I known the circumstances; and I endorsed it as it was."

Moreover, Mr. Richard J. Hinton, a thoroughly competent and trustworthy witness, having made careful inquiry on the spot at the time and afterward, denied this charge in a letter of Dec. 23, 1859, to the *Boston Traveller*, of which paper he had been the regular Kansas correspondent. In that letter, after giving historical details, he said: "John Brown told me he was not a participant in the Pottawatomie homicides. John Brown was incapable of uttering a falsehood."

Certainly, John Brown had the courage of his convictions. His assertion must settle the point with all who knew him. Nevertheless, he approved these executions. The question now is, Are we to approve them?

From the state of things above rehearsed, namely, that the men were grossly guilty, deserving, for many reasons, the severest punishment, and determined to persist in their crimes—that the peace and welfare of the community required their removal—and that there was neither a regular court to try them nor a prison to restrain them from further outrage, I think that the killing of those malefactors was both right and wise, and that their executioners merit praise instead of censure.

Let us now look at another case.

The Anarchists who have lately been put to death in Chicago by sentence of the Supreme Courts of Illinois and the United States, were proved to be gross violators of law, and also thoroughly hostile and dangerous to the peace and welfare of the community. Did these facts justify the deliberate taking of their lives, as in the case of the Border Ruffians of Illinois?

I think there is this essential difference between the two cases: The civil authorities had the Anarchists entirely in their power, and imprisonment of them for



life would have given the needful protection to the community much better than execution of the death penalty, since new attempts at revenge by retaliation may be expected from their relatives or accomplices. The justification of those who slew the Border Ruffians was, that the outrages against life and liberty in Kansas could be checked only by the method there taken. In the state of things then and there existing, protection to the community could not be given in any other way. This fact, I think, authorized the killing of the Border Ruffians, while no such state of things authorized the killing of the Anarchists. Their execution was wrong, because the better method of long and secure imprisonment was fully within the power of the court; and it was inexpedient in the highest degree, since it has elevated the sufferers to the rank of martyrs in the eyes of numerous associates, from whom acts of retaliation may be expected, continuing indefinitely to disturb the peace of the community. Taking their lives under such circumstances was not only a fault but a blunder.

#### THE UNCERTAINTY OF THE LAW—ITS REMEDY.

BY CHARLES T. PALMER.

"Brethren of the legal profession, we cherish a noble ambition, if, above all mere personal views and desires, we aim to make the world better and our country greater and nobler for our having lived in it. The aim will be in a large degree accomplished if our labors shall tend to simplify and elevate the law. Without good and trustworthy laws there can be no great and noble State, no settled order, no happy people. And far beyond all other influences, the labors of the legal profession are capable of lifting the State to that enviable condition of a State whose laws give content to the people, because they are just, and because the people know, and understand, and approve, and therefore abide by them."

Such are the significant words with which Hon. Thomas M. Cooley closes an address entitled, "The Uncertainty of the Law," delivered at the last meeting of the Georgia Bar Association, wherein he takes the position that the charge that the law is uncertain, on the lips of the vast majority of people throughout the United States, is unjust and unfounded; and brings to his support the oft repeated truism that above and beyond the Court, the mere instrument by which the law is declared and applied to human affairs, there is a grand body of legal principles, omnipresent and co-existent with eternity, founded in and consonant with reason and natural equity, immutable and unaffected by the changing circumstances of the race, out of which all human rights proceed and by which they are determined.

This as an abstract proposition need not be dis-

puted, but it is, nevertheless, true that the exact nature of the law can never be ascertained, and, in fact, has no substantive existence until a court has passed upon and recognized the given principle. So long as the probable action of the Court is shrouded in mystery, just so long can it be said that the law is uncertain. The Courts, the legal profession, the eminent authority, Mr. Cooley himself, all combine to rivet the charge of uncertainty upon the law by admitting the uncertainty of its administration; by admitting the hopeless complications of its precedents and practice; and by suggesting that it is the highest duty of the legal profession to take such action as will tend to *simplify and elevate the law*.

To this end many methods have been suggested, all containing some elements of virtue, none reaching the evils complained of. Codification has been invoked; uniformity of judicial decision in the several States of the United States has been advocated; committees and bar associations have been recently formed, all for the purpose of bringing about greater certainty in the law. Such eminent authority as Joel Prentiss Bishop is found advocating the preservation of the old common law system of jurisprudence as the only means of arriving at certainty, while David Dudley Field, and others of like standing, point to codification as the only refuge from hopeless confusion.

"*Stare Decisis*," at one time the cherished motto of Courts, under the unconscious influence of a new dispensation has degenerated into a rule to be applied only in cases where positive injustice is not done to the individual litigant. Judges are everywhere adopting the practice of the early Chancellors of England, the practice which obtained before Equity became a distinctive branch of our jurisprudence, namely, of deciding each particular case according to principles of natural equity and right as applied to the facts. Five centuries of endeavor on the part of the Courts to give stability to rules of law by following precedent, all will agree has resulted in inextricable confusion, until it is not too much to say that precedent and authority can be found for almost any cunningly devised proposition of law which the ingenuity of man can suggest.

In every community there is some worthy person who from childhood to old age has been dealing with his fellows, and been brought into contact with men of all sorts, and who all the time has been living in obedient conformity to law, but ask him what the law is and he cannot tell you; he has never heard it defined, he has never been told its rules. In his dealings with his neighbors he has not thought of law, but has only meant to do what is right; tested by the great principles of law, his action will be found to conform to law. This illustration, used by Mr. Cooley to ex-



emply a widely different proposition, suggests the secret by which the stability of our jurisprudence may be established and the certainty of the law maintained.

There is that innate quality in human nature which enables the mind to discern the right however its standards may vary in different times and civilizations, and Courts, being the instruments of humanity, should be held to a strict accountability to decide all cases in accordance with those eternal principles which are above and beyond the technical administration of the law. There need be no fear as to inconsistency, that which is right is always consistent with itself. The life, the effort, and the work of great and good men in the world's history is strangely consistent with itself, though at the time they wrought their heroic deeds they took no thought of their actions in the past or their conduct in the future. The speeches of great men on all questions of moral reform are strangely consistent with each other, although delivered at long intervals of time, and under widely different circumstances. The law is greater than any individual, strong enough and broad enough to take care of its own consistency. Its application to human affairs can never be made certain until the Courts that apply it are animated and controlled by principles as broad and strong as those of the law itself; in other words, the only salvation for our jurisprudence is the adoption, in its broadest, fullest significance, not using the term in a technical or confined sense, of an Equity Jurisprudence whereby the Court "Considereth all the circumstances of the deed" and judgeth accordingly. Nor in so doing will Courts be traversing an untraveled field, for it was this thought and purpose that prompted the Chancellors of England to break away from the narrow and inadequate system of common law procedure, and to create new forms of action for the redress of grievances, and the recognition of new and substantive rights. The same spirit should animate the Courts of to-day to the end that the administration of law may keep pace with the onward march of civilization, and precedent and authority become in name what they are in fact, the landmarks by which to determine what the law *was*, and not necessarily what it should be. Surely if, in the every day walks of life, a man not knowing the law may instinctively abide by it, Courts, in the fullness of knowledge, will find a way to maintain its integrity.

#### ON THE LIFE AND LETTERS OF CHARLES DARWIN.

BY THE REV. H. H. HIGGINS.

(Concluded.)

The writer's recollections and printed papers enable him distinctly to recall the chief features of the Darwinian controversy from the year 1855, the date of his own first communication to this Society.

Not long after this, the Mechanicalists singled out for concen-

trated attack, the argument from design, or, as it is called, teleology.

The writer has all along felt that, although unable to support teleology on orthodox grounds, if design as the source of order in nature were lost, all that is most worth caring for in natural science would be lost along with it.

In some quarters the attack on teleology is as exterminating and as bitter as ever. It must be a source of great satisfaction to many that in such quarters Professor Huxley is not to be found.

I do not profess to be able, by quoting a few lines from Professor Huxley's pen, to do justice to his views on so great a subject; but the following words from Vol. II, p. 201, are a portion of Professor Huxley's quotation of his own words, written nearly twenty years ago:—

"The doctrine of evolution is the most formidable opponent of all the commoner and coarser forms of teleology. But perhaps the most remarkable service to the philosophy of biology rendered by Mr. Darwin, is the reconciliation of teleology and morphology, and the explanation of the facts of both which his views offer.

"The teleology which supposes that the eye, such as we see it in man or one of the higher vertebrates, was made with the precise structure it exhibits for the purpose of enabling the animal which possesses it to see, has undoubtedly received its death blow.

"Nevertheless, it is necessary to remember that there is a wider teleology, which is not touched by the doctrine of evolution, but is actually based upon the fundamental proposition of evolution."

The value of these remarks is much increased by the date at which they were first written—in the very heyday of the controversy.

For teleology, to have any *raison d'être* at all, must imply a primordial source of order, and the warmest advocates of the argument from design—without assuming that Professor Huxley's views coincide fully with their own—could desire nothing better than the rejection of a teleology that is coarsely circumscribed and false, in favor of a wider teleology that is well-founded and consistent with the facts of nature.

VOL. III. The correspondence in this volume is arranged in sections, relating to the works from time to time published by the distinguished author, subsequently to 1863.

From that date, scientific men in all parts of the world anticipated a new work from the pen of Mr. Darwin with something of the keen interest which, as I well remember, was associated with the appearance of a fresh novel in the Waverley series.

In many letters Mr. Darwin refers to Pangenesis, his theory respecting the reconstruction of lost limbs in certain animals, *e. g.*, the claw of a crab or a lobster; but in no case does he seem to be convinced by his opponents' arguments, founded, as they mainly were, upon the difficulty attending the conception of an hypothesis so extremely intricate and complicated.

It is, however, a very unsafe argument against a theory, that it is too wonderful to be true. No one has illustrated this fact more forcibly than Mr. Darwin. Let us suppose a philosopher of the last century asking for an explanation of the flower of an orchid, and finding some one capable of leading him *seriatim* through all the marvels of its phylogeny and development, and natural selection, and cross fertilization, every stage in which is essential to the full elucidation of the morphology of the flower.

Is it not probable that the philosopher, let his receptivity have been ever so well developed, would be unable to accept the true hypothesis? He would be wholly overwhelmed by the marvels crowding in upon him, and his only answer would be—"it is too wonderful to be true."

So far from having reduced the mystery of life, Darwin has filled the whole kingdom of life with wonders.

Some subjects appear to have fascinated Darwin more than others, perhaps none more so than that of insectivorous plants, Vol. III, p. 320:—



"I will not publish on *Drosophila* till next year, for I am frightened and astounded at my results. I declare it is a certain fact that one organ is so sensitive to touch, that a weight seventy-eight times less than that, viz., 1-1000 of a grain, which will move the best chemical balance, suffices to cause a conspicuous movement. Is it not curious that a plant should be far more sensitive to the touch than any nerve in the human body?"

Three years before his death, Mr. Darwin added to his *Autobiography* the following lines in his own hand:—

"As for myself, I believe that I have acted rightly in steadily following and devoting my life to science. I feel no remorse from having committed any great sin, but have often and often regretted that I have not done more direct good to my fellow creatures."

Mr. Darwin died April 19, 1882.

Within the few years which have elapsed since the most honored of our sacred shrines received the remains of the author of *The Origin of Species*, a change has been hastening on which must, sooner or later, deeply affect the sanctions of religious life in every nation under heaven.

The historian who, a hundred years hence, shall write of the present movement may probably see more clearly than we do ourselves a coincidence of various proximate sources. Colenso, Max Müller, Matthew Arnold, and Darwin, each has his share, whilst thousands of the very wisest and best of men, profoundly convinced that mere science cannot of itself constitute a religion of the heart, are filled with love and veneration for the old paths, and are grateful for the results that from age to age have arisen from the ancient faiths. Such men follow with redoubled zeal the courses in which they have been brought up, yet not without a deep sense of disquietude.

This is a generation of unsparing religious efforts in many directions. Can it be true that every way seems to be zealously tried, except one? viz., a competent investigation into what it is, concerning faith and hope, that a perfectly united nature really teaches.

That enquiry is left to be answered in accordance with the tenets of an age when "Unity in Nature" was not known, or even thought of.

A time will be when, perhaps, the younger of us may see more fully than any of us do now the fitness of Darwin's testamentary summing up of his life:—

"As for myself, I believe that I have acted rightly in steadily following and devoting my life to science."

[THE OPEN COURT is devoted to the work of investigating "into what it is concerning faith and hope that a perfectly united nature really teaches." And the result of our work has been (to use Rev. Mr. Higgins's own words, p. 1232) "that Christians and heathen, bishops and philosophers, will be all sailing on the same bottom; and, to carry on the metaphor, that the most valuable and reliable seamen are not those who are the loudest renouncers of all treatises on navigation, but such as do their utmost to make whatever is good and true in the old, work in with the new."—Ed.]

## HOW FAR DOES SCIENCE GIVE US CAUSES?

BY WILLIAM M. SALTER.

A new point of view is always welcome to the genuine student of philosophy. One may not be able to wholly adopt it, but one's mental experience is almost sure to be enriched by assuming it for the time and trying to see what new light it may shed on perplexing problems. I myself, if I may be excused for making this article autobiographical, have no philosophical system. I have perhaps, a few scattered philosophical ideas, but I have spent too much time in unlearning an old view of the world to have had leisure thus far to develop a satisfying and consistent new view. And so I count myself still a student and a learner, and am desirous of enriching my storehouse of ideas with as many points of view as possible.

One of the most difficult problems I have encountered in my thinking is as to the nature of causation. What is causation? I

have asked myself, and to what extent can we find the causes of events in the world of our experience? Accordingly, I have read the article on "The Problem of Causality" by the editor of this journal in a recent number (Sept. 13), with interest and pleasure. I admire the calm and reasonable spirit manifested in it; also the simplicity of the style and the orderly development of the ideas. I find myself asking, Can I think in this way? and trying to do so. Evidently, in favor of the notion of causation there expressed is that it is so simple, so apprehensible. A cause is said to be that which produces a new state of things (effect), and after citing a number of instances, the generalization is reached, that there is no causation without motion, or in other words that cause is a motion. Motion being so intelligible, so familiar to us all, if we could discover that every change is preceded by motion of some sort, we should be perfectly satisfied, and mystery would so far be banished from the world. When we see a stone rising in the air, our causative instinct is perfectly satisfied when we learn that some one has thrown it—the movement of the arm having been transferred to the stone.

But as I turn over all possible cases of change in my mind, to see whether the new formula will fit them, one occurs to me which is perplexing. When a stone goes up, the motion of an arm is a sufficient cause; but how when the stone comes down? Can we discover any motion that makes it come down? Dr. Carus refers casually to such an instance. "The cause may be that my fingers let it go." This might answer when I am on an elevation and do let it go. But how when I throw it into the air, and stand on the ground? The movement of my arm is exhausted in its rising; what causes its falling? Dr. Carus does not fall into the popular error and say gravitation makes it fall; for as a philosopher, he knows that gravitation is simply a generalized statement of the fact that it (and every body) does fall (or tends to). Gravitation is a law (using the word in a metaphorical sense), not a cause. Why then does the stone fall, again I ask? If some one were up there, or if there were any movement up there transferring itself to the stone, I should be no longer perplexed and the new formula would hold good. But plainly this is not the case. It looks as if there were change without any antecedent motion. The only antecedent motion was that of the rising stone,—and this has exhausted itself. If there is a cause, apparently we cannot discover it. And yet we are as sure as we can be of anything that there is a cause for every change. But perhaps the cause need not be a motion; in that case the new formula would break down. Of course this is only a single instance and many others can be conceived of, where the formula applies perfectly; still, it is an instance of something happening every day and every hour and every minute and everywhere through the known universe—and must plainly be taken into account.

(To be continued.)

## CAUSES AND NATURAL LAWS.

IN REPLY TO MR. SALTER.

Mr. Salter while trying to fit our formula of causation to all possible cases, presents an instance which appears perplexing. "When a stone goes up," he says, "the motion of an arm is a sufficient\* cause; but how when the stone comes down? \* \* \* It looks as if there were change without any antecedent motion. The only antecedent motion was that of the rising stone,—and this has exhausted itself."

The problem presented by Mr. Salter must be explained from the Conservation of Energy. The expression that a certain motion exhausts itself is ambiguous and will naturally lead to misconceptions. No motion exhausts itself. It disappears in one special

\*The expression "sufficient cause" has been purposely avoided in our discussion on causality. Every cause is a sufficient cause. The mere idea of insufficient causes is productive of confusion. However, reasons may be more or less sufficient.



form only to reappear in another form. There are two kinds of energy, potential and kinetic, or as Ernst Mach most graphically calls them *Kraft* and *Arbeit*. Kinetic energy or *Arbeit* (work performed) is motion, mechanical or molecular motion, heat, electricity, or magnetism. Potential energy is *Kraft* or force acting in things at rest—"energy of position." A stone of a certain mass that lies on the ground performs no work but in its weight it represents a certain amount of potential energy. Another stone of the same mass that lies thirty feet above the ground on the roof of a house, represents the same amount of potential energy plus the potential energy equivalent to the kinetic energy expended in lifting that stone thirty feet. If this stone is dropped from the roof its additional sum of potential energy is changed during the fall into kinetic energy. When the stone arrives on the ground it has lost the kinetic energy of its fall, and by this loss is created an exact equivalent of heat which, if employed to raise the stone, could lift it again thirty feet above the ground.

When a stone is thrown into the air, we transmit to it kinetic energy. When the stone for an imperceptible moment stays in the highest place of its rise, it may be considered as possessing in addition to its weight such potential energy as is equivalent to the kinetic energy which we have transmitted to it by the throw. If the stone is not somehow retained in the air, it will at once change this potential energy again into kinetic energy; it will fall down.

Conservation of energy means that the sum total of all kinetic and potential energy remains the same in the whole universe. Kinetic energy may be created from and may disappear into potential energy. There is no creation in the old sense nor any annihilation, but only change from one form of energy to another.

In the case presented by Mr. Salter, the cause of the stone's rising to a certain height is the act of throwing; and again the stone's rising is the cause of its being suspended for an imperceptible moment in the air. Being suspended there without support is the cause of its falling down. When arrested on the ground, the stone's downfall is the cause which produces heat. The heat is given off to the surrounding soil and atmosphere where the further effects become imperceptible to us; still, they do not cease to exist.

Cause is always a motion of some kind, but the explanation why potential energy is changed into kinetic energy, or why the stone is attracted towards the earth is not the cause but the *raison d'être*, the reason, of a stone's fall. Explanations of the effectiveness of causes under certain conditions are formulated by our scientists into what they call natural laws. Natural laws are abstract conceptions of a certain class of phenomena; they are thoughts which enable us to comprehend all causes of the same kind. Accordingly, gravitation is a law but not a cause.

Some critical minds may object: "This abstract idea of gravitation which has been formulated by Newton, represents a natural law; natural laws are not non-entities but realities which exist independent of our thought." My answer is: gravitation certainly is a non-entity, but in so far only as it does not exist of itself. It is real in so far as it represents a quality which has been abstracted from real things. Abstract gravity as a thing in and of itself is a non-entity; but things exist that possess weight and their quality of possessing weight is called gravity. A quality is not a cause, but a quality may serve as a ground or *raison d'être*, as a reason for the explanation of the effectiveness of a cause.

The stone is heavy, heavier than the air, therefore it falls to the ground; a balloon is light, lighter than the air, therefore it rises. The heavier air falling forces the balloon upwards. Heaviness and levity are not causes but qualities, which in certain cases will explain why bodies rise or fall.

Qualities are always present in things; they are co-existent with them and in them. Reasons, *raisons d'être*, or grounds, which from the qualities of things explain their actions under certain circumstances are of a general nature and apply to all cases of the same

kind. Causes are always transient phenomena in single and individual cases.

Gravitation, or the law of gravity, is applicable as an explanation to all cases when we have to deal with things possessing weight. In order to explain the fall of stones as well as the motions of heavenly bodies, Newton proposed the formula that the attraction between two bodies is directly as the mass and inversely as the square of the distance. We call it Newton's law, and speak of this formula as a natural law. Now, when we want to know why this law is valid, we do not search for its cause but for its *raison d'être*. When stones fall to the ground, the causes may be ascertained in every single case. The causes of the motions of heavenly bodies have been conjectured with sufficient plausibility as having arisen from an unequal distribution of matter in the gaseous nebula. But the *raison d'être* of Newton's law, if it were found, would not be the verification of a certain single event or fact or motion in a certain state of things, but a quality of matter or of its surrounding ether. If we could by logical reasoning and experiments prove that ether has the quality of pushing two masses toward each other, this quality of the ether may serve as a *raison d'être* for the gravity of masses. I do not mean to say that this explanation which has been proposed by Le Sage, is correct. On the contrary, I look upon it as a very vague and unwarranted hypothesis. New investigations may throw more light upon the problem of gravity. For an elucidation of the problem of causality it serves us as an instance only to explain the difference between cause and natural law. P. C.

## CORRESPONDENCE.

### FINAL CAUSE IN SCIENCE AND RELIGION.

To the Editor of THE OPEN COURT:—

The length of the reply of Mr. Theophilus and your careful and able reply led me to conclude not to ask for a single line of room for personal response. But when I read over the last sentence of my opponent I am so astounded as to simply request you to print a protest. He affirms that "The verdict of Science is that there is in nature neither a First nor a Final Cause," to which I add my most entire assent. But he has so left matters that he seems to attribute to me the opposite affirmation. By no word of mine could he justly infer that I would teach a doctrine of Final or Primal Cause. His communication moves back and forth from the assumption that I identify religion and science. I did nothing of the kind, as reference to my words shows clearly. I affirmed, and reaffirm that no religion exists or can exist which does not involve and rest upon a theory or set of theories which express the science of the present or the past. Our present Christian system is unfortunately involved with the science of 2,000 years ago. It is only a play with words, an avoidance of the matter in hand to say this is not real science. It was the knowledge of the age when it was first taught. Was Aristotle teaching Science or not? Yet much that he taught is disproved. Science is always clearly open to amendment. Mr. Theophilus begins by assuming an absolute unquestionable body of truth which he calls science. He then as arbitrarily assumes another body of false theories which he designates as religion. The divorce is unwarranted. I understand Monism to be that religion which, freeing itself from the narrower knowledge of the past, conforms itself to the cosmical apprehension of latest science. It is hardly necessary to add that religion involves both knowledge and admiration and aspiration;—thought and feeling. Monism is the advanced front of an age of science. It asserts that science is not materialistic, or agnostic, or atheistic.

But "Religion," we are told, "has been a matter of concern to the uncultivated and not to the learned." If Mr. Theophilus will refer us to a single one of the world's greatest, from Brahma or Zar-



athustra, down to Goethe, Shakespeare, Bacon, and Darwin;—from Socrates to Cavour, and from Lucretius to Mortillet and Huxley, who has been indifferent either intellectually or emotionally to religion, we shall have a beginning of a reason for trusting his assertions. It happens to be a fact that the world has been "God drunk," and no one has been too wise or great to escape the contagion. But "Science concerns itself with Being and its external relations," and religion involves the emotions. Mr. Theophilus is unable to establish any such dividing line. I am confident that there is a large percentage of emotion in Huxley, Haeckel, Darwin, Asa Gray, Agassiz, Tyndall, and in nearly every page they ever wrote. But perhaps I have not yet come upon the unemotional scientists.

On the other hand, if Mr. Theophilus will question any "uncultivated person" who is religious, he will find no difficulty in discovering that such a person's religion involves a violent assertion of a system of natural philosophy,—false in part no doubt, and in so far dualistic. Nor is it any less science because false, or any less religion because narrowing. It is an effort to get at the causative principle, the why and the wherefore. It is not impossible that Mr. Theophilus's own views may come measurably short of the absolute truth while the ignorant man's views are only in degree less inaccurate. Is Mr. Theophilus therefore only religious and not scientific?

But once more Mr. Theophilus speaks of science "as knowledge obtained through observation as opposed to opinion, authority, etc." How much of any one's science excludes opinion and authority? How much of our friend Mr. Theophilus's science? Will he be kind enough to publish for our benefit his absolute knowledge so that we may no longer be troubled with any opinions. The fact is my opponent has involved himself in an impossible undertaking. Religion and science cannot be never have been divorced.

Truly yours, E. P. POWELL.

#### THE PROBLEM OF CAUSALITY. COMMENTS UPON THE EDITORIAL OF NO. 33.

To the Editor of THE OPEN COURT:—

In your recent editorial upon "The Problem of Causality" you seem to leave almost untouched all questions in the domains of psychology and ethics, (1) and however valuable your definition of cause may be for scientific purposes it seems to me to be altogether too limited in scope for philosophical purposes. "Cause," you say, "being the factor that produces the effect or the new state of things, is a motion. It is an alteration in a certain state of things whereby a further alteration, a re-arrangement or a new combination becomes necessary." Now, a cause is that which produces, creates, or makes something, let it be what it may. (2) Motion considered by itself, or as abstract motion, is a nonentity; (3) considered in relation with phenomena, or matter, it is merely descriptive of a condition or state of being, phenomenal or real. Hence, how can we consider cause in any general sense (5) as a motion? (4)

If we wished to confine ourselves to the 'proximate cause' (6) or causes of those facts and occurrences which we observe in nature, would it not be more exact to say that material impact (7) is such cause, since it is the impact of the atoms or objective forms of matter, one upon the other or others, that stands nearest to the effect in point of time or succession of phenomena? Previous to impact there is motion, but it is not motion unqualified, alone and of itself, that is the cause of any change in phenomena, but it is the rather motion arrested by impact of particles or collision of bodies which immediately produces the new arrangement in statu.

Suppose that a cannon-ball were shot into space and there were no resisting medium in space: it is then logically conceivable that the ball would continue in motion forever without producing any effect, (8) True, it may be said that if there were no motion there would be no impact, but it may also be said that if it were not for

some other pre-existing condition or fact there would be no motion, and so on until we should simply perceive or be brought to the conviction that there is but an eternal regression of finite causes and effects (9), but the philosophical problem of cause would still remain unsolved. Your further definition of cause brings us, however, more fully upon true philosophical grounds; and if we may be permitted to construe "a certain state of things" to mean a certain state or condition of existence of the whole of the phenomenal universe (10) at a given point of time we should not be inclined to dissent from the definition you give, since the ultimate demands of our reason would in so far be satisfied; but in order to make the idea of causality complete, it would still be necessary to postulate an ultimate (11) Will and Intelligence (12) from and by virtue of which the succession of phenomenal events and existences flow and become intelligible to us.

M. A. GRIFFEN.

CHICAGO, September 17, 1888.

#### EDITORIAL REMARKS.\*

[(1) It was impossible to exhaust the subject in one editorial essay. The question of causality "in the domains of philosophy and ethics" has been discussed in the editorial of No. 33, "Determinism and Free Will."

(2) The definition of cause as "that which produces, creates, or makes something, let it be what it may," is objectionable, from our conception of causality. Creation in the old sense of the word has become an impossibility. The only possible kind of creation is one of form. Causality must be limited to the creation of new forms, or we shall lose ourselves in the many errors of dualistic philosophies.

(3) "Motion considered by itself, or abstract motion," is an idea. Abstract ideas are "non-entities" in so far only as they do not exist in their abstractness outside of our brains. Nevertheless, they are real; they exist in real things as their forms or qualities; and from real things they have been abstracted. Nor must it be forgotten that ideas possess another and indeed no less important reality. Physically considered, they are organisms in our brains. The mechanical work done by these minute brain-organisms is extremely small in comparison to the result obtained. Here is the *δύσκειν ποῦ πρὸς τὸ αὐτὸ καὶ κινήσει τὴν γῆν* † of which Archimedes spoke. An idea that is going to revolutionize the world may not cost more expenditure of energy than 0.001 foot-pound. These "non-entities," as abstract ideas have been called, are at the same time the most powerful realities in the world.

(4) Causation considered by itself is an abstract idea also. What has been said in (3) about motion holds good of causation. Causation in its abstractness may fitly be called "a non-entity" in so far as it does not exist by itself but in and with the things only.

(5) If Mr. Griffen means by "cause in a general sense" something different from "cause in the usual sense," we call his attention to the sub-title, "Wrong Conceptions of Causality, in No. 53, p. 1203. "General cause," in the sense of *raison d'être* or of what in German is called *Grund*, is no motion, for it is no cause. The *raison d'être* or ground of certain phenomena is their explanation which is formulated by scientists as a law. Cause is always a motion, a certain event, an occurrence; however, the *raison d'être* (being a reason) is an abstract idea, a generalization of many cases.

(6) One *raison d'être* if it is more general and better known, can be employed as an explanation for another *raison d'être* which is less general and less familiar to us. All *raisons d'être* (being mere abstractions) are co-existent while a series of causes cannot but be successive. If *raisons d'être* are confounded with causes, we enter into a labyrinth of most intricate mazes full of unsolvable mysteries. Such mongrel ideas as General Causes, Proximate Causes,

\*While writing these comments as briefly as possible, the editor takes for granted that the reader is familiar with the essay on The Problem of Causality in No. 55.

†Translated: "Give me a place to stand on and I will move the world."



Remoter Causes, First Causes, Final Causes, are the fabulous monsters that people its gloomy resorts.

(7) "Impact" cannot be thought of without motion. "Motion arrested by impact of particles" does not cease to be motion, although it may be changed by "a collision of bodies" in heat, or electricity, or magnetism, which are forms of molecular motion.

(8) If a cannon-ball is shot into empty space, the act of shooting is the cause and its motion is the effect. Its motion at a given moment must be conceived as the cause for its motion in the following moment. The law of conservation of energy is the *raison d'être* that under the supposed conditions would serve as an explanation for the continuance of the ball's motion *ad infinitum*.

(9) "Eternal regression of finite causes and effects" is a phrase very unfamiliar to my way of thinking. Does the word "finite" causes suggest a possible existence of "infinite" causes?—Probably our correspondent means by "an eternal regression" the possibility of going back from effects to causes, a process which can be carried on *ad infinitum*, or rather *ad libitum*. If this is the meaning of the phrase, the reader will find some explanation of the subject in the editorial of No. 32, "Infinity and Eternity."

(10) This is the exact meaning of our explanation of causality.

(11) How "an ultimate Will and Intelligence" differs from ordinary wills and intelligences remains problematic.

(12) We find that the sum of the angles of a plane rectangle as of those of any quadrilateral is always  $360^\circ$ ; that in plane triangles it is  $180^\circ$ ; we find that the planets move according to fixed laws and that the atoms combine in certain arithmetical proportions; in a word, we find order everywhere. The most complicated instances of this order are explainable from the most simple truths. Who would "postulate an ultimate Will and Intelligence" for the fact that two apples and two more apples will always make four apples? If the rule  $2 \times 2 = 4$  needs no explanation from an ultimate Will and Intelligence, there is no reason why Kepler's laws in Astronomy, or the law of multiples in Chemistry, need such explanation.

The postulation of a Will or an Intelligence behind the phenomena of nature as the source of order and law, will launch us into Dualism. It is an anthropomorphic conception which conceives of the immanent order as the work of an extramundane artisan.

Human intelligence is an expression, the highest known to us, of this general order. The general order of the world is the *raison d'être* of the possibility of economizing thought, and by the economy of thought we are enabled to crowd a more or less correct conception of the whole universe into the narrow bounds of our brain, which enables us to understand and thus to make use of "the phenomenal events" of nature.]

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

#### CHAPTER XXIV.

#### AMONG THE STUDENTS.

ANY one who would know the Professor at his best should see him sitting surrounded by his students, the mature man amidst blossoming youth, the teacher among his admiring scholars. For the greatest privilege of the academical teacher is, that he not only exercises a personal influence on the present, but ennobles the souls of men in later generations by his knowledge. Out of the many who listen to lectures a chosen circle attaches itself to the learned man, the tie of personal intercourse connects the teacher and the scholar, lightly formed but lasting; for what attracts one to the other, and often makes the stranger

after a few hours an intimate friend, is the pleasant consciousness that both value and appreciate the same thing.

This bond, so charming and profitable for both parties, is the noble poetry which learning grants to its votaries. Strangers and men of later generations judge the value of a man only by his books, but however valuable may be the products of a man's mind thus transmitted, it gives but an imperfect picture of it to later times; far different does the living source work in the souls of those who receive knowledge from the lips and eyes of the teacher. They are taught, not only by the substance of his instructions, but still more by his method of investigating and expounding, and, most of all, by his character and the original style of his discourse. For these warm the hearts of his hearers, charm their minds, and inspire them with respect. Such an impression of the human mind, which leaves its traces on many, is often more important in forming the character of young men than the subject-matter of the instruction they have received. The character of the teacher works in the scholars; new life is infused into them, and they imbibed not only his excellencies, but also, sometimes, his peculiarities and weaknesses. In each hearer the characteristics of the master assume a different aspect, yet in each the influence of his mind is apparent, even in minute particulars. The lessons which Felix gave to his wife were not the only ones given in his house. One evening of every week belonged to his students. There came, first, a few who wished to ask questions and obtain information about their work; afterwards, a greater number assembled. Ilse's room was also opened, and Gabriel brought tea and simple fare, and an hour passed in easy conversation, till, at last, the most intimate withdrew into the study of their teacher, and clustered around him in numbers almost too great for the narrow room. Here, also, the conversation was varied; sometimes a humorous account of what they had experienced, or discussions in which the Professor knew how to make his young friends take an active part, and, interspersed with these, rapid criticisms upon men and books, pointed remark and quick retort, such as are natural to those who can recognize long melodies by a few tones. At these receptions Felix disclosed his inmost soul with an openness that he never showed in the lecture-room. He spoke of himself and others without reserve, and entered pleasantly on what he had most at heart.

Ilse was no stranger at these gatherings. Those who assisted in them, whether serious men, old students, or young doctors, found pleasure in the presence of the distinguished lady of the house, who, in her simple way, took part in their intercourse. The year before she had shown her intimacy with the Odys-

\* Copyrighted.



sey, when she summoned the gentlemen to the enjoyment of a leg of wild boar, and expressed the benevolent wish that they would not disdain to partake of the meal. After that she was called Penelope in the circle, and she knew that this nickname spread among the students beyond the walls of her house.

Ilse had her favorites among the young men. Of this number was a worthy student, not the most distinguished, but one of the most industrious of the Professor's scholars. He was a countryman of hers and had been the first to show her that students had tender feelings in their breasts. This student had, during the last year, worked successfully in filling his intellectual vacuum with collegiate knowledge. His lyrics he had almost given up; for when the Professor sent him back his poems, he had felt remorse and humbly begged pardon. Since that, having obtained a good scholarship through Felix, he took a less misanthropic view of domestic affairs; he proved himself a faithful and attached companion, and now bore the honorable title of Doctorandus, which, according to our grammarians, signifies a man who is about to be a doctor; he had also attained a certain degree of recognition among the students; he filled a position of honor in the great Arminia corps, always wore their colors on his cap, and was ranked among the privileged seniors of the society who, on drinking evenings, were exempted from the heavier obligations of conviviality, and filled up by serious conversation the pauses in which the stormy youths took breath.

On one of these evenings the conversation took a learned turn even before the party had retreated from Ilse's apartment to the study. An interesting manuscript had been found in a distant library in South Germany. There was much talk about the discovery and the editor, and Felix recounted with satisfaction to some of his select circle all the similar discoveries which had been made during the last twenty years. Then our student, who had just received a cup of tea from Ilse, and was stirring it with his spoon, said, in evident ignorance of the storm that was lowering: "May there not be many things still undiscovered in the neighborhood? In my town there is an old chest, which contains books and papers from the monastery at Rossau. It is not impossible that there may be something valuable there."

Thus spoke the student, stirring his spoon, like a boy who applies a burning match to a bombshell.

The Professor started from his chair, and cast such a flaming glance at the student that in fright he quickly set down his cup of tea in order not to spill it. "Where is the chest?" said the Professor.

"Where is it? I do not know," replied the student, surprised. "I was told of it, some years ago, by a countryman of mine, who was born in the district of

Rossau"—the student mentioned the name, and Ilse knew the family—"but it must be in our county, for he lived there as tutor in several places."

"Was he a philologist?" asked an older scholar, as eager as the Professor.

"He was a theologian," replied our student.

A murmur of regret passed through the room.

"Then the account is still very uncertain," concluded the critic.

"Did the man see the chest himself?" asked the Professor.

"I am not certain of that, either," replied the student. "I did not then know the importance that attached to the communication. But, I think, he must have seen it himself, for I remember he said it was thickly plated with iron."

"Unfortunate man! You must do your utmost to procure us information about this chest," cried the Professor. He paced impatiently up and down the room, the students making way for him respectfully. "Your communication is of more importance than I can now tell you," began the Professor, stopping before the student. "Endeavor, in the first place, to recall what you have heard about it. Did your acquaintance ever see the chest open?"

"When I come to think of it," replied the student, "I believe that he saw some old monastic relics lying in it."

"Then it was no longer closed?" inquired the Professor. "And where is your friend, now?"

"He went to America last year with a brewer's daughter. I do not know where he now resides, but it may be ascertained from his relations."

Again a murmur of vexation passed through the room.

"Endeavor to discover the residence of the man; write to him, and ask for accurate information," exclaimed the Professor; "you can do me no greater service."

The student promised to do all in the power of man. When the party broke up Gabriel communicated to the student a secret invitation to dinner on the following day. Ilse knew that it would be agreeable to Felix to have the company of one who had even an acquaintance who had seen the chest that contained the books of Rossau, among which, it was possible, the manuscript of Tacitus might lie, provided it was not somewhere else.

She, however, did not hear with any satisfaction of the secret chest, for Ilse was, alas! incredulous in the matter of the manuscript. She had sometimes vexed her husband by her indifference on the subject, and, after the unfortunate Struvelius episode, avoided every mention of the lost treasure. She had, besides, special reasons for it. She knew how much every



thought and discussion concerning it excited Felix. He always became agitated, and his eyes shone as in fever. It is true he controlled himself after a few minutes, and laughed at his own fervor; but these outbreaks of latent ardor were not agreeable to his wife, for she saw by these sudden flashings that the thought of the manuscript still fretted the soul of her dear husband, and suspected that in secret he often dreamt of it, and entertained secret designs against the walls of her father's house.

Our student had now aroused the storm. Later, the doctor was called in and there was a long discussion and dispute. Ilse was glad that the doctor did not attach much importance to the chest, and by sensible suggestions brought the Professor at last to make humorous remarks upon his own eagerness.

When, on the following day at dinner, the student produced the letter he had written in proof of his zeal, the Professor treated the matter with more composure. "It is an uncertain account," he said, "even if the relator tells the truth; he may be in error concerning the particulars, or even the name of the monastery." When, afterwards, information came from the house of the student that the theologian had settled somewhere in Wisconsin as an apothecary, and that the student's letter had been sent to an uncertain address in a distant country, the whirlpool which the mention of the chest had provoked had subsided to peaceful ripples.

The greatest advantage consequent upon this episode came to our student; for the Professor imparted the account to the Chamberlain, and pointed out to him that in this chest there might be things of very great value. The Chamberlain had several years before held the post of castellan, and was well acquainted with all the relics of his sovereign's castles, and was aware that there was nothing of that kind to be found in any of them; but as the student appeared to him to be a favorite of the family, he took kindly notice of the young man, and offered to present him as a fellow-countryman to the Hereditary Prince. This was done. The consequence of the introduction was that our student was invited one evening on which the Prince received other academical acquaintances.

It was an anxious evening for the student, and the Arminian had various reasons to be mistrustful. For, this year, there had been violent storms among the students. It was the quarrel between the corps of Markomanns and the Society of Arminians that had raised the tempest. The recent cause of the storm was curious and instructive to those who watch the secret links of earthly events. The discord which had sundered the professors who were the representatives of ancient learning, the struggle between Werner and Struvelius, had not at the time much excited the aca-

demic youth. But, shortly afterwards, a song had come forth among the students, in which the adventure of Struvelius was treated disrespectfully. This song was a weak production; it was in the form of a ballad, and adorned with a refrain to this effect:

"Struvelius, Struvelius,  
Come out here with your Fidibus; \*  
Who burns himself will have a fuss."

The author was never discovered. But when one considers that this song, so far as could be perceived from its ludicrous style, was averse to Struvelius and in honor of Werner, and further, that it first appeared among the Arminians, and that among these children of Arminius was one who had cherished lyrical tendencies in the past; that this one belonged to Werner's circle, and that in this circle the parchment had upon several occasions been contemptuously treated as a fidibus, one cannot suppress the cautious supposition that our student had degraded his departing muse by this miserable performance.

This frivolous song had become popular with the Arminians; its refrain was heard in the streets sometimes in the quiet night; it was very vexatious to the Professor, and not less so to Werner's tea party, but it could not be put down by force. The song and its origin were matters of indifference to the Markomanns and their associates, but they did not sing it simply because it was modelled upon a drinking song of the Arminians. About the time that Werner entered upon his rectorate, some students of all parties were sitting together in a restaurant; a Markomann attempted to light his pipe by the gas-flame, and a spark burnt the ribbon of his corps-colors; whereupon some of the Arminians mockingly sang the refrain. The Markomanns sprang up and commanded silence. Numerous challenges were the consequence. But, unfortunately, the matter did not rest there. A number of Arminians had drawn up in front of the Markomann's club-house, and had openly sung the tune in an insolent manner on the main street; it led to disagreeable conflicts between the parties and the city police, and investigations and punishments were the result. Werner himself had, in private conferences with some of the leaders, done what he could to suppress the unfortunate song, and he had succeeded in banishing it at least from the streets. But the ill-will remained in their hearts. By various unfortunate occurrences it became clear that there was more disunion and discordant feeling among the students than usual.

The Arminian, as he hung up his cap in the Prince's ante-room beside the smart ones of the great Markomann leaders, anxiously revolved all this in his mind. The evening passed off more pleasantly than he had expected. In the august chamber the Markomanns

\* Fidibus—paper-lighter.



observed decorous civility. The meeting indeed was of some importance; for this was just the time when the students were talking about holding a great *Commers*\* to celebrate the anniversary of some university event. But, as often happens in the greater affairs of our nation, the feast was in danger of being disturbed by the quarrel between the clans. Now, while the Arminian was drinking punch together with the Markomanns, the Hereditary Prince expressed the desire to participate in the commemorative *Commers*; and Beppo, the leader of the Markomanns, explained to the Arminian his views as to how the quarrel might be adjusted. The Arminian offered to convey this proposal to his corps. When the Chamberlain hesitated as to the participation of the Hereditary Prince in the *Commers*, the Arminian, exhilarated by punch and the flow of conversation, assured him that his comrades would appreciate the honor done to their festival by the presence of the Hereditary Prince.

The efforts of our student were successful; the hatchet was buried, and the academic youths prepared for a festival in common. A large hall, richly ornamented with the colors of all the associations that took part in the *Commers*, was filled with long tables. At the end stood the presidents in festive attire, with their rapiers. On the chairs sat many hundred students, arranged according to their respective corps and clubs. Among the Markomanns were the Prince and his Chamberlain; and the Prince on this occasion wore their colors in honor of the corps. The full-toned melody of the songs, accompanied by stirring music, resounded through the room; it was a goodly sight to behold so many young men, the hope and strength of the rising generation, united in festive song, according to the old customs of the university. Hitherto the festival had passed without any disturbance. The Chamberlain, remarking that cheeks were beginning to glow, and the songs becoming wilder, so that the music was not rapid enough for the beating of the academic pulse, advised the Prince to retire. The Prince, himself excited by song and wine, immediately rose; before him walked all the nobility of the Markomanns to clear the way through the surging multitude. They were obliged to push through the crowd, who had risen from their chairs and were moving about in confusion. But it chanced that the Prince was cut off from his academical attendants and bumped against an insolent Arminian, who, emboldened by wine and embittered by the not very gentle touch of the advancing Prince, would not make way, but barred the passage intentionally with his elbows, and coolly proceeded to puff his pipe in the Prince's face. The Prince was inconsiderate enough to push the Arminian

roughly aside and cry, "You are an impudent fellow;" whereupon the Arminian spoke the fatal word, of which the consequence, according to academical custom, is either a duel or loss of honor to the person insulted. In a moment he was surrounded by the Markomanns. The same insulting word poured like hail from all sides on the audacious offender; but he drew out his card-case mockingly, and called out, "One after another; let the whole retinue follow suit; like master like man." When the throng became greater, he cried out to those behind him, "This way, Arminians," and began in loud bass tones the battle-cry of his corps:

"Struvelius, Struvelius,  
Come out here with your Fidibus."

The tumult spread throughout the hall; over chairs and tables sprang the Arminians to the aid of their endangered champion; the words of insult and challenges flew in volleys in every direction. In vain did the presidents call them to their places; in vain did the music interpose; the angry cries of the contending parties could be heard above the shrill *fanfare* of the trumpet. The presidents hastened together, and, passing along in close array, separated the contending parties. But the wild uproar was followed by violent discussions; the associations stood apart from each other; separate groups jeered at one another, and, according to the old custom of academic belligerents, endeavored gradually to drive their opponents to use the word of challenge. Some provoking expressions had already been used which were forbidden by the social rules of the University; blades were glittering in the air, and more than one hand clenched a wine bottle. The music struck up the national hymn, but it was untimely, and from all sides came the angry shout, "Stop it! stop it!" The frightened musicians were silenced, and a fresh outbreak of the tremendous tumult seemed inevitable, when an old leader of the Teutons, who knew his people well, sprang up into the orchestra, seized a fiddle, seated himself in a chair high up as director, and began the foolish tune, "*Ach, du lieber Augustin, alles ist hin.*" The music began in plaintive tones. Every one looked up, and at once noticed the eminent gentleman scraping strenuously on the fiddle; the mood of all was suddenly changed, and a general laugh arose. The presidents struck their blades on the table so violently that more than one broke, and commanded peace; the leaders of all the associations joined together, and declared the *Commers* to be concluded, and called upon the clubs and corps to return peacefully home, as they intended to take the affair in hand. The students crowded angrily out of the hall, and dispersed to their respective head-quarters; but in every group the events of the evening were discussed with vehement bitterness, and embassies passed rapidly from one camp to another throughout the night.

(To be continued.)

\*A festive and bilacious celebration, in honor of some prominent person, or commemoration of a great event.



## BOOK REVIEWS.

POLITICAL ESSAYS. *James Russell Lowell.* Boston: Houghton, Mifflin & Co.

This is a collection of essays on political subjects running over a range of thirty years, from '58 to '88, and therefore dealing with dead and living issues. Most of them have little more than an historical interest for the present reader, but Mr. Lowell has always stood before the American public as the representative of the most advanced and liberal opinions of the day, from the time of the publication of the Biglow papers to the present time, when he bears the rôle of an enlightened political independent. This latest volume of his will form a useful addition to the Lowell library every reader of thoughtful books wishes to own.

C. P. W.

THE VIRTUES AND THEIR REASONS. *Austin Bierbower.* Chicago: George Sherwood & Co.

We like this book predict for it a wide and helpful reading. Mr. Bierbower further describes the object of his work in the subtitle, "A System of Ethics for Society and Schools." After a short introductory chapter, the contents of this volume are arranged under the two heads of "Duties regarding Others Chiefly," "Duties regarding Self Chiefly." The book is designed to present the right rule and reason of good conduct, without going into metaphysical speculation on the same, in a clear, comprehensible style easily understood by young readers, and making the book suitable for school instruction. Its purpose and result are both to be warmly recommended.

C. P. W.

THE SAFE SIDE. A Theistic Refutation of the Divinity of Christ. By *Richard M. Mitchell.* Chicago: 1888. R. M. Mitchell, 6141 Stewart Ave.

The author says on p. 348: "Believing is supposed to be the safe side and vast numbers are held by that error into a partial support of a religion the first step in which consists in defaming God." To worship Christ, Mr. Mitchell declares, is a degradation of God. "In just that degree that a Christian is a believer in Christ," he says, "he is an unbeliever in God, and in just the degree that Christ is a Savior, God is a failure." \*\* From the consequences of actual sin there is no salvation. From the consequences of the mythical sins of Christianity there is no need of any." The book before us is a most vigorous protest against the belief in the divinity of Christ; to the prejudice that this belief is the safe side, the motto is opposed that "it is safe to know the truth." Love for truth and a truly religious spirit has guided the author in his labors. Through the briars and brambles of pagan conceptions in Christianity he breaks his way in the hope of finding a purer and truer Religion. If in our opinion he does not succeed, if on his way he cuts roses which he takes to be thorns and thistles, we nevertheless sympathize with his effort. *In magnis voluit ut est.* He does not in our opinion succeed because, while rejecting the divinity of Christ, Mr. Mitchell retains the unwarranted belief in a supernatural world. He says, "The reasons for believing that we are under the guidance of supernatural wisdom are much greater than ever known before, while the reason for unbelief has its base in that ungratified curiosity that cannot accept isolated unexplained facts." *The sum of all arguments against the existence of a God and of our own immortality.* "It amounts to but an expression of disbelief." This latter declaration refers to Mr. Spencer's "conception of the Unknown Cause" and supposes that Agnosticism represents the most advanced thought of radicalism. By the roses which Mr. Mitchell cuts down, believing in best faith to weed out tares, we mean his criticism of the Gospel of St. John. The fourth gospel, it is true, is the least historical and most unreliable as to facts in the life of Jesus, but it is at the same time the most poetical, most philosophical, and grandest gospel of the four. "The entire Christian system," our author says, "stands upon the gospel

those bishops then originated and the few interpolations they made in the other gospels. \* \* \* The original authors of the Synoptic Gospels no doubt believed what they wrote, their fault being in their judgment rather than in their honesty. The Fourth Gospel is the only one in which that mental condition of the author was reversed, and by his arts it has been made the most popular gospel of them all." Although it is more than probable that the author of the fourth gospel was not the apostle St. John, but some Alexandrian philosopher, we cannot agree with Mr. Mitchell when he considers the whole work as an imposture of the clergy, who "caused it to be written" because they greatly needed such a gospel that exalted Christ as the son of God. Fully agreeing with Mr. Mitchell that the fourth gospel has a later origin, and that its authorship by the disciple whom Jesus loved is a fiction, we consider it as a poem of philosophic depth and great religious enthusiasm, which boldly attempts to build upon the Neoplatonic philosophy an invisible and supernatural Kingdom where Christ is the king, adorned with a crown of thorns.

If the belief in a supernatural world with all its mystic impossibilities is accepted at all, there is to our mind no difficulty in accepting also the minor problems which, if considered in their non-metaphorical meaning, must also appear as absurdities.

As a very original chapter we point out "The Cause of the Crucifixion," in which Mr. Mitchell supposes that Joseph of Arimathea played an important part.

## NOTES.

Mr. Charles T. Palmer, the author of the article "The Uncertainty of the Law—Its Remedy," in this number, is the editor of the *Chicago Legal Adviser*.

With the poetical sub-title of *WOODNOTES IN THE GLOAMING*, Messrs. *Cupples & Hurd*, of Boston, publish an American edition of "Poems and Translations," by Miss Mary Morgan [Gowan Lea]. The "Poems" have been reviewed in No. 23 of *THE OPEN COURT*.

## PAMPHLETS ON LIVING QUESTIONS.

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ALFRED BINET. In Nos. 49, 50, 51, 55, 56 and 57.

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 plexity of phenomena or such a varied wealth of  
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 organisms revealed to us by the aid of the mi-  
 croscope. They inhabit the water we drink, the  
 food we eat, the air we breathe. They live as para-  
 sites in the intestines and flesh of animals, and in  
 plants; aiding or injuring their hosts, as the case  
 may be. They lie dormant in a particle of dust, a  
 legion in number. They roam free and unconfined  
 in a drop of water, there a world. Infinite in  
 number, variety of size and manner of appearance,  
 the same beings that the unaided vision of man  
 cannot alone discover, form no unimportant factor  
 in the construction of continents and in the con-  
 figuration of the surface of the globe. They are  
 the simplest known forms of life, and every contri-  
 bution that throws light upon their mode of ex-  
 istence, cannot fail to be of transcendent interest  
 to biologists and scientists in general.

M. Alfred Binet, the collaborator of Ribot and  
 Péro, and one of the most eminent representatives  
 of the French School of Psychology, has pre-  
 sented in this series of articles the results of the  
 most recent investigation into this department of  
 Life. Every phenomenon that the improved  
 methods of microscopic research have shown to be  
 indicative of an exercise of intelligence, will, or  
 feeling in these minute beings is fully discussed  
 and analyzed. M. Binet has added much by these  
 articles to the psychology of the microscopic world;  
 he has opposed many theories, confirmed others,  
 and advanced many conclusions of his own. The  
 correspondence elicited in France by these essays  
 will be published at the conclusion of the series.

The articles have been translated from the *Revue  
 Philosophique*, and the original cuts procured from  
 the publishers.

### THE FOUNDING OF OUR RELIGIOUS FREE- DOM.

By MONCURE D. CONWAY. In No. 52 and 53.

Mr. Conway here discusses a subject that the  
 present Centenary Era renders timely and inter-  
 esting. The glorious immunities of civil liberty  
 that our ancestors wrested from the grasp of feudal  
 traditions and confirmed by constitutional bul-  
 warks, were attended perhaps with greater bril-  
 liancy and marked by greater effort of acquisition;  
 but, from the standpoint of individual freedom,  
 liberty of conscience and the principle of religious  
 toleration rank not below them in importance. Mr.  
 Conway's story is drawn from unpublished sources,  
 from private manuscripts, and is in the main the  
 result of original research. The state of the Church  
 of England in Virginia, the apostolate of Samuel  
 Davies, the religious tendencies of colonial society,  
 the religious profession of men to become so fa-  
 mous in history, of Randolph, of Patrick Henry,  
 of Madison, and of Jefferson—are all described  
 and discussed, and the manner told in which both  
 the institutions and the men of that era affected and  
 influenced the founding of religious freedom in the  
 United States. The new light which Mr. Conway's  
 research throws upon this important chapter of  
 American history, will be welcomed by all.

### DETERMINISM VERSUS INDETERMINISM.

Prof. GEORG VON OTZSCHE. In Nos. 55 and 56.

Georg Von Oetzsch is Professor of Philosophy at  
 the University of Berlin. His name is well known  
 beyond the boundary of his country. The problem  
 of the Freedom of the Will has perhaps never been  
 treated in a clearer and more forcible manner. Con-  
 tributions on the same subject have been published  
 from E. F. Powell and Xenos Clark.

### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.

FELIX L. OSWALD, M. D. In Nos. 27, 29, 31, 33,  
 34, 35, 38, 40, 42, 44, 46, 48, 51, 54 and 57.

The Science of the thousand-fold *moral effects of  
 physical causes* is still a sealed book to a large por-  
 tion of our fellow-men. The ethics we have in-  
 herited is biased by the tenets of an anti-physical  
 and anti-natural philosophy, and the tendency of  
 the latter has ever been to sanction and exagger-  
 ate the *physical effects of moral causes*. Dr. Oswald  
 says: "Our entire system of moral education needs  
 a thorough revision, and the success of urgent social  
 and ethical reforms depends on the radical recon-  
 struction of moral philosophy on a basis of natural  
 science." The subject is treated in the graphic  
 manner which has ever characterized Dr. Oswald's  
 contributions to the Literature of Natural History  
 and Anthropology. It is marked by the usual wealth  
 of illustration and abounds in felicitous and per-  
 tinent citations of historical and natural evidence.

### THE PROBLEM OF CAUSALITY.

In No. 55 is an editorial discussion of The Prob-  
 lem of Causality. The surpassing importance of  
 this subject renders a clear conception of it abso-  
 lutely indispensable to correct observation and  
 sound reasoning. Despite this the problem has  
 been unbecomingly neglected, and this neglect has  
 given rise to innumerable errors and to an aston-  
 ishing lack of lucidity in scientific discussion.

The problem is treated with clearness and pre-  
 cision; simplicity of presentation being especially  
 aimed at.

### THE QUESTION OF IMMORTALITY

Is treated in the Editorial of No. 25. "Evolution and  
 Immortality." It is shown that immortality accord-  
 ing to the Monistic view is immanent; it is a con-  
 tinuance of ourselves in our children, in our ideas  
 and in the work we have done during life. Rudolf  
 Weyler in his essay, "THE PROCESS OF PROGRESS,"  
 in No. 24, speaks of death as a mere transition and  
 C. Billups in a letter of No. 23 criticises the wrong  
 notion of a transcendent immortality as taught by  
 Dualism.

### THE INDIVIDUALITY OF ATOMS AND MOLECULES.

Rev. H. H. HIGGINS M. A. In Nos. 43 and 42.

Mr. Higgins says: "Evolutionists have to  
 choose between discontinuity and the recognition  
 of a universal principle of life, which may be re-  
 garded not as mechanical, but as inherent in the  
 primordial atom." This idea underlies the theory  
 of J. G. Vogt also. But Mr. Higgins attributes an  
 individual *bias*, or life-unit, to every atom, while  
 Vogt postulates a continuous, contractile, elastic  
 world-substance, wherein the atoms of modern  
 chemistry are made to be centres of condensation.  
 Mr. Higgins hypothesis endows each atom with an  
 idiosyncrasy which comprehends all that determines  
 its individuality and makes it what it is. The essay  
 should be read in connection with a letter in No. 43  
 upon "The Origin of Life and the Problem of  
 Memory."

### THE FIELD-INGERSOLL CONTROVERSY

An editorial discussion of the Field-Ingersoll  
 Controversy and of Mr. Gladstone's Remarks upon  
 the same, will be found in Nos. 43 and 44. The  
 questions and issues involved are treated from an  
 independent and impartial standpoint. The inefficacy  
 of Agnosticism to approach a solution of the  
 religious problem is shown; Agnosticism being but  
 a negative view of the world. The true position  
 and significance of both parties in the development  
 of the religious idea are pointed out and each is re-  
 cognized as important and necessary to the ultimate  
 synthesis of religious truth, a religion which will in  
 clude what is good in all.



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No. 59. Vol. II.—33.

CHICAGO, OCTOBER 11, 1888.

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## GHOST STORIES.

A STUDY IN FOLK-LORE BY L. J. VANCE.

### PART I.

*How* There needs no ghost, my lord, come from the grave,  
To tell us this.

(Hamlet, I. Sc. IV.)

Why should a ghost come from the grave, or from some other silent place, for no earthly reason? But this is like asking, why should there be any ghosts at all? In these days of rapid transit and the electric telegraph, needs there a ghost to tell us that our great grandfather, or a rich relative, died the night before? Mr. Edison's phonograph has made the coming of a ghost from the grave wholly unnecessary, and quite out of place. For now, the voice of the Cock-Lane Ghost might speak to us from the eighteenth century with all the reality of a living voice, and besides, no one need be frightened half out of his wits.

Ghost stories! their name is legion. How shall we classify them? How shall we compare them! These stories are so numerous, so complex, and so arbitrary, that they seem to defy any sort of arrangement. They range from stories about ghosts taking the shape of cats and dogs, to stories about spectral figures, "arm'd at point exactly, cap-a-pie"; from the sounds of an invisible wood-cutter's axe in the forest, to the awful clanking of chains and the terrible rattling of windows and doors at midnight in an old English county house; from the spirits that come when the "medicine-man" or the "medium"-man calls them up, to the sprites that come when they like, without calling. Yet, we believe there is some method in all these seemingly inconsistent stories. We might point out that, those stories which Bushman and Hottentot tell of ghosts coming as Kangaroos and as Serpents, are only on a par with those stories which German and English peasants tell about Gabriel coming with his "hell-hounds." We might go on and remark that savages in Australian bushes have been warned by their fathers' ghost, just as the Duke of Buckingham was warned by the ghost of Sir George Villiers, his father. We might inquire whether a Keneka savage and Lord Lytton, both of whom were informed of coming death by ghostly visitation, are not "in the same tale." Finally, we might find that spirits "manifest" at an Esquimo or Maori *séance* the same as at an exhibition given in the dark by the Fox

sisters, and Mr. Slade. Obviously, all these strange stories should be made the subject not only of curious but of scientific inquiry.

Here, let me begin by setting forth what is the general object and scope of our present inquiry. It will not be our object to account for every detail of every wild and senseless ghost story. But I shall take for granted the general principle, that stories about ghosts were born of the savage fancy, which conceived among other things, the power and permanence of the souls of the dead; that these stories have been retained for the most part by rude and uncultivated people, by the Folk. Holding, then, that ghost stories were evolved by persons in the savage mental *status*, we shall regard the wild and senseless part simply as a "survival." Thus, my thesis in general will be that the supernatural *stuff* of ghost stories, the belief in the existence of the souls of the dead,—in the possibility of the spirits of the dead re-appearing in the form of animals or in the human form, in the power of the "medicine-man" or of the "medium" to exorcise the spirits, and in the presence of spiritual creatures that 'walk the earth unseen,'—is more or less the same all over the world.

But let not the timid reader be frightened by the somewhat formal phrases which I have been obliged to use in this exordium. The method and scope of this essay can best be stated in the simplest and plainest English. Thus the method we propose to apply to ghosts and ghost stories will be the so-called Comparative Method. By this method we collect the ghost stories of the civilized and the uncivilized folk, and point out the elements they have in common. We thus place a Hottentot, Esquimo, or Indian ghost story side by side with a Negro, German, or English tale of like character. Such is, we think, the true method of Folk-lore.

Let us grant, at the outset, that the straight and narrow path to Ghostland lies through Dreamland. Let us also grant that the savage draws no hard and fast line between dreams and realities, or, as Schoolcraft well puts it, "a dream or a fact is alike potent in the Indian mind." One of the earliest ghost stories in literature is told in the *Iliad* (XXIII, 70-100). There the shade of the unburi'd Patroclus appears to the great Achilles in a dream. "And Achilles sprang up



marvelling, and smote his hands together, and spake a word of woe: 'Ay me, there re-appeareth then even in the House of Hades a spirit and phantom of the dead, albeit the life be not anywise therein: for all night long hath the spirit of hapless Patroclus stood over me, wailing and making moan, and charged me everything that I should do, and wondrous like his living self it seemed.' Here, then, we have the framework, so to speak, of the early ghost story.

Now, this Homeric story also serves to illustrate the belief of early man in a soul or spirit separate and distinct from the body. Both Mr. Spencer and Mr. Tylor derive the belief in ghosts from the phenomena of dreams, of swoons, of catalepsy, of ecstasy, of visions produced by narcotics, and of other kindred phenomena. Both have adduced a vast amount of evidence to show that the soul without a burial place was a wandering spirit.\* Thus, the soul of the unburied Patroclus must forever wander under the form of a *larva* or ghost unless properly buried. Then came the belief, as M. Fustel de Coulanges has so well shown, that a wandering spirit became a malevolent spirit; it frightened the living by gloomy apparitions, and warned them to give sepulchre to the body.

I. Hence, we take, first, stories about "laying the ghost." Every precaution was taken to keep the ghost from troubling the living. The Australian cut off the right thumb of a dead enemy, so that his ghost could not draw a bow.† The Algonquin Indians beat the chamber in which the man died with sticks,‡ while the Chinese knocked the floor with a hammer.§ Some precautions taken to keep the ghost away were very odd, but quite effective. The efforts to deceive the ghost, though childish, were quite ingenious.|| Mr. Ralston relates how in Russia the peasants barricade the house and hang a sharp knife over the door. Plutarch curiously asks: "When a man who has been falsely reported to have died abroad, returns home alive, why is he not admitted by the door, but gets up on the tiles, and so lets himself down the chimney into the house? ¶

But to return to our ghost stories. The younger Pliny gives a very full description of a haunted house at Athens, in which the ghost startled people by what seemed the rattling of chains. Athenodorus, the philosopher, hired the house, and one night followed it out to a spot in the courtyard, where it disappeared. The next day a search was made, and a grave found. The bones were burned and the ghost never appeared again. A somewhat similar story is told in the *Mostellaria* of

Plautus, where a spirit was obliged to wander and to frighten people because its body had not been placed in the ground and proper rites performed.

Very few stories about "laying the ghost" have survived, because the beliefs from which they sprang, have not survived the shock of time. From the Middle Ages come numerous tales of ghosts being "laid" by sprinkling holy water over the grave. So, too, priests tolled bells to keep away the ghost. Again, we have stories of ghosts being frightened away by the celebration of a solemn mass. Such stories have not yet died out in England. In the *Folk Lore Journal*\* two folk stories of "laying a ghost" within a few years are recorded—the one a Birmingham story, the other a Cornish tale. In the latter case, the ghost was "laid" by the prayers of a clergyman.

II. We now take, for comparison, a class of stories in which ghosts are heard, not seen. These tales have a very wide range. Some of them seem to be explainable, while others, on any theory, seem to be inexplicable. I shall offer for consideration stories which the American Society for Psychical Research might investigate with success and profit.

The first story, we take, is a translation from Sahagun's *Historia General de las Cosas de Nueva España*. It reads as follows: "When so any man heareth the sound of strokes in the night, as if one were felling trees, he reckons it an evil boding. And this sound they (the Mexicans) call *Youaltepualli*, which signifies the 'midnight-hatchet.' This noise cometh about the time of the first sleep, when all men slumber soundly, and the night is still. The sound of strokes smitten was at first noted by the temple servants, at the hour when they go in the night to make their offering of reeds or of boughs of pine. . . . Whenever they heard such a sound as one makes when he splits wood with an axe, they hear hence an omen of evil, and were afraid, and said that the sounds were part of the witchery of the Tezeatlipoca, that often thus dismayeth men who journey in the night."

Then the learned Spanish missionary goes on to relate how, one warrior braver than his fellows, came up to the cause of the sound; how he caught it; and behold! "it was a man without a heart, and on either side of the chests two holes that opened and shut, and so made the noise."

Now, has this ancient ghost story any modern parallel? Yes, more than one. Let us now compare with this Mexican story of the "*Youaltepualli*" a story of the "midnight-axe" from the Galapagos Islands, as told by De Quincey. The gist of the story is as follows: "There was some old tradition—and I know not but it was a tradition dating from the times of Dampier†—that a Spaniard or an Indian settler in

\* Principles of Sociology, Vol. I, part I, chapters 11-15. Primitive Culture, Vol. I, Chapters 1-5. Mr. Spencer's theory of the origin of religion is that it sprang from the worship of the ghosts of ancestors.

† Prim. Culture, Vol. I, p. 451.

‡ Brinton, "Myths of the New World," p. 110.

§ Gray's China, Vol. I, p. 280.

¶ Roman Quest, V.

¶ See article in *Popular Science Monthly*, September, 1885, for the answer.

\* Vol. V, pp. 23 and 261.

† An early traveler and writer.



this island had been murdered in pure wantonness by some of the lawless rovers who frequented this solitary archipelago...attested by generations of sea-vagabonds, that every night, duly as the sun went down and the twilight began to prevail, a sound arose—audible to other islands and to every ship lying quietly at anchor in that neighborhood—of a wood-cutter's axe....Sturdy were the blows and steady the succession in which they followed; some even fancied they could hear the sort of groaning respiration which is made by men who use an axe, like those who in the town ply the 'three-man beetle' of Falstaff as paviors.... The close of the story was that after, I suppose, ten or twelve minutes of hacking and hewing, a horrid crash was heard, announcing that the tree, if tree it were, that never yet was made visible to daylight search, had yielded to the old Woodman's persecution."\*

De Quincey adds some further particulars:

"The wood-cutter would begin his operation soon after the sun had set; but uniformly at that time his noise was less. Three hours after sunset his noise had increased, and generally at midnight was greatest, but not always. Sometimes the case varied thus far: that it increased towards three or four o'clock in the morning, and as the sound grew louder, and thereby seemed to draw nearer, poor Pink's ghostly panic grew insupportable."\*

Lastly, let us compare both the Mexican and Galapagos story with a 'midnight-axe' story current in Cingalese Folk-lore. This story, called "The Mystery of the Pezazi," is told by Mrs. Edwards in *Macmillan's Magazine* for 1880. An abridged account of the mystery (quoted by Mr. Lang in "Custom and Myth") may here be given: "I lay, on the night in question, tranquilly sleeping, but gradually roused to a perception that discordant sounds disturbed the serenity of my slumber. Loth to stir, I still dozed on, the sounds, however, becoming, as it seemed, more determined to make themselves heard, and I awoke to the consciousness that they proceeded from a belt of the adjacent jungle, and resembled the noise that would be produced by some person felling timber. Shutting my ears to the disturbance, I made no sign until, with an expression of impatience, E— suddenly started up, when I laid a detaining grasp upon his arm, murmuring that there was no need to think of rising at present—it must be quite early, and the kitchen-cooly was doubtless cutting fire-wood in good time. E— responded in a tone of slight contempt that no one could be cutting fire-wood at that hour, and the sounds were more suggestive of

felling jungle; and he then inquired how long I had been listening to them.

"Now, thoroughly aroused, I replied that I had heard the sounds for some time, at first confusing them with my dreams, but soon sufficiently awakening to the fact that they were no mere *phantoms* of my imagination, but a *reality*. During our conversation the noises became more distinct and loud; blow after blow resounded as of the axe descending upon the tree, followed by the crash of falling timber."

It may be asked: What do you make of these three stories of the midnight-axe? How do you explain that, in Ceylon, the noises of midnight tree-cutting are attributed to a Pezazi, or ghost; that, in the Galapagos, they are referred to the spirit of a murdered Spaniard; that, in ancient Mexico, they are ascribed to a man without a heart? Frankly speaking, I make no explanation. I simply leave the explanation to those who heard the sounds of the old Woodman's axe.

III. In this connection I would briefly call attention to a class of stories in which musical sounds, "sometimes a thousand twangling instruments," are ascribed to spirits. The savage is keenly alive and sensitive to all the hidden sounds of nature. To his ear the air is full of supernatural noises. In the soothing of the tree-tops he hears the moans of a hapless spirit, while in the pounding drops of the waterfall he hears the drum-beats of a warlike demon or angry bogey.\* A story of this class may be found in the last number of the *Journal of American Folk-lore*. Mr. Chamberlain writes:

"The caverns in the hills around Burlington Bay and the head of Lake Ontario were looked upon by the Mississaguas as the abodes of spirits. One of these, at the foot of a steep precipice, from which the sounds of explosions were often heard, was called by them *Manito-ah wigwam* (the house of the devil). At the foot of a hill near the Credit village was a deep hole in the water. Here, the Indians said, a spirit was often heard to sing and beat his drum."

We place side by side with this, a story told by that renowned traveler, Marco Polo:

"Marvellous, indeed," he writes, "and almost passing belief are the stories reported of these desert phantoms, which are said at times to fill the air with choral music from all kinds of instruments, from drums to the clasp of arms, so that oftentimes a whole caravan are obliged to close up their open ranks and to proceed in compact line of march."

It is not necessary to spend much time on this

\* "Autobiographic Sketches," Vol. 2, p. 353. (Boston Ed., 1880.)

\* Ibid. p. 356. Pink was the nickname of De Quincey's brother.

\* "There is no music in Nature. Music is the creation of man. He does not reproduce any combination of sounds he has ever heard or could possibly hear in the natural world."—Hawai's "Music and Morals," p. 18.



class of stories. We content ourselves by citing two well-known instances.

One story is about the Drummer of Tedworth. Mr. Mompesson of Tedworth hearing a drum beaten one day, inquired what it meant. The bailiff told him that the people had for some days been troubled with an idle drummer. Mr. Mompesson sent for the man, carried him before a magistrate, and took the drum to his own house. After that Mompesson's family were badly frightened by midnight drumming—sometimes in the room where the drum lay, sometimes on the house-top.

The other story tells how Fastini, the musician, heard a spirit play a solo of singular beauty on the violin. After the spectre vanished, Fastini took his violin and composed a similar piece far superior to all his other compositions. He called the piece the "Devil's Sonata."

IV. Again, if the savage ear is preternaturally acute, his vision is unusually keen. He sees (dozing or awake) things which bear "no impression of the thing it was." We have a class of stories in which the ghosts assume the appearance of a fire or bright light. Some of these stories are well worthy of the attention of the Psychological Society. In his *Tales and Traditions of the Eskimo*,\* Rink says, that the Inue, or spirits, "have the appearance of a fire or bright light, and to see them is very dangerous." He then adds that they foreshadow "the death of a relative."† Many readers of the Odyssey will remember the scene where Telemachus cries out, when the goddess Athene, unknown to him, enters the room: "Surely, a great marvel is this I behold! Me seemeth that the walls of the hall, and the fair spaces between the pillars, and the beams of pine, and the columns that run aloft are bright, as it were with flaming fire." (XIX. 21-50.)

With this story we may compare the scene in King Lear (III. 4) where Gloucester's torch being seen in the distance, the Fool exclaims: "Look! here comes a walking fire," whereupon Edgar replies: "This, the foul fiend Flibbertigibbet; he begins at curfew, and walks till the first cock." Even into English poetry the story of

\* A wandering fire  
Kindled through agitation to a flame  
Which, oft they say, some evil spirit attends,"

has found secure lodgment. Milton seems to identify this spirit with the well-known "Will-a-wisp," "Peg-a-lantern," "Robin Goodfellow," and other similar figures in English folk-lore.

The negro story of the ghost of the blacksmith hovering as a bright light in the air will be found in Mr. Harris's "Uncle Remus" (No. XXXII).

It would be easy to multiply stories of this kind current in the lore of both civilized and uncivilized folk. But we conclude by giving a story which, so far as we know, is a quaint bit of superstition. It is printed in Grant's "Superstitions, Demonology, and Popular Delusions."

"The mysterious lights in the Gulf of St. Lawrence which are believed by mariners to be warnings of great tempests and shipwreck, were unusually brilliant in 1878. It is said to be a *fact*, established by the experience of a century, that when these lights blaze brightly in the summer nights, the phenomena are invariably followed by great storms. They give to the spectators on the shore the sight of a ship on fire. The fire itself seems to consist of blue and yellow flames, now dancing high above the water, and then flickering, paling, and dying out, only to spring up again with fresh brilliancy. If a boat approaches, it flits away, moving further out is pursued in vain. The lights are plainly visible from the shore from midnight until two in the morning. They appear to come from sea shoreward, and at dawn retire gradually, and are lost in the morning mist.

"Paradis, the French pilot, who took charge of the British fleet under Admiral Sir Hovenden Walker when it sailed up the St. Lawrence to seize Quebec, in 1711, declared he saw one of these lights before that Armada was shattered by the dreadful gale on the 22d of August. The light, he said, danced before his vessel all the way up the gulf. Every great wreck that has taken place there since Sir Hovenden Walker's calamity has been preceded, if tradition is to be believed, by these mysterious lights, and they have thus warned the mariner of fatal storms."\*

V. We take next a class of savage ghost stories which, for obvious reasons, are hardly ever found in modern folk-lore. We allude to those tales where ghosts make their *début* in the form of animals. An animal ghost story is usually a relic of the Totem stage of culture,—a relic of the time when men traced their descent from a beast, a bird, or a serpent, when animals were worshipped and feared as divine spirits, as gods.† It is now hard to find peasants who do not make their boogies something better than cats and dogs. Yet, in Miss Burne's book on "Shropshire Folk-Lore," there is an odd story of the Squire of Bagley, who, after his death, came as monstrous, savage bull. His body was laid in a church where he cracked the walls by his strength. "There are believers in this story," says Miss Burne, "who affirm that, were the stone to be loosened, the bull would come forth again by many degrees worse than he

\* Page 638.

† See McLennan's essay, "The Worship of Animals," "Totems and Totemism," *Fortnightly Review*, 1869. Also his "Patriarchal Theory," pp. 128-157. Lubbock, "Origin of Civilization, Chap. V, etc.

\* P. 43.

† In a well-known English story a mysterious fire blazes from the lofty battlements just before the noble proprietors die.



was at first.<sup>1</sup> Stories of lycanthropy have been collected by a number of retailers of the gruesome and need not be repeated here. For example, one French writer has published a volume of modern French peasant stories about ghosts showing themselves in the form of beasts.<sup>†</sup>

But such ghost stories are interesting only as striking examples of intellectual "survival." They show the *persistence* of those low grades of thought and feeling that characterize primitive and uncivilized communities. Just as the refined Greek would not "let ape and tiger die," so the rude peasant on heath or by sea will not willingly let ghost and goblin die. He can no more help trembling at shades and shadows than the horse can help trembling at the sound and smell of a wild beast.

(To be continued.)

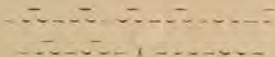
### MATHEMATICS AND LOVE.

BY \* \* \*

#### THE ELEGIAC DISTICH.

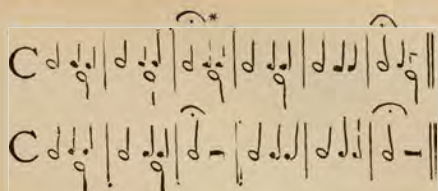
The distich has been justly regarded as the classic consummation of Greek verse. It was developed from the dactylic hexameter shortly after the time of Homer. The first line is an heroic hexameter, which is divided in the second or third foot by a *cæsural* pause. In the second line, the first half of the hexameter as far as the *cæsura* at the close of the fifth half-foot [-----] is twice repeated.

The adjoined diagram, in lieu of more specific rules, will serve to explain the distich, and shows the places where one long syllable is allowed to take the place of two short ones.



The second line of the distich is called a pentameter or five-measure line, as consisting of twice five half-measures. Yet, as a matter of fact, the pentameter has exactly as many bars<sup>‡</sup> or meters as the hexameter has, for at the close of each of the two divisions of the pentameter there occurs a pause of half a bar's length, just as at the close of the last foot of the hexameter there occurs a pause of a quarter-bar's length.

Expressed in musical characters, the distich reads as follows:



This form of verse is styled *Elegiac* by the Greeks and has been employed for contemplation and consideration of every sort.

The distich is in many ways comparable to the sonnet. As the distich was the classic form of ancient Hellenic verse, so is the sonnet the classic form of the Italian Renaissance. Both are very precise and rigidly defined. Like the sonnet, the distich cannot be sung to music; for the very reason, perhaps, that it contains the element of harmony in so high a degree that music can do no more to enhance its musical character.

But while in the sonnet the two parallel members (the rhymes *a b b a—a b b a*) come first in order and afterwards unite in a third part to a completed whole, in the distich, on the contrary, the dactylic hexameter, being the original unity, precedes and is afterwards resolved into two coördinate parts, which are formed by the component divisions of the pentameter. Thus, the sonnet is synthetic; the distich, analytic. Consequently while the sonnet with its elegance and euphony of rhymes is adapted to reflection and meditation, the distich in its finished brevity becomes appropriate to the aphoristic utterance of sentiments, pointed and antithetic comparisons, and epigrammatic thoughts of every description.

According to a widely prevailing notion, Science and Poetry are two unconnected branches that have nothing in common with each other. But this is a prepossession wholly unfounded. As Science can submit *all* things to a rigid investigation and exact scrutiny, so may poetry draw inspiration and enthusiasm from *all* that moves or thrills the human heart. As the psychologist may analyze the warmest feelings of the poet's soul, so too may the poet, in turn, enter into the spirit and feel the poetry of science. Though in itself science is not poetry, yet poetry is everywhere manifest in science. And no science is more closely akin to the spirit of poetry than Mathematics, in all its varied applications, particularly Mechanics and Statics. The Mechanics and Statics of emotional life, while they are scientifically investigated by the philosopher in his psychological studies, receive in poetry an audible expression, which can be measured, in the rhythm of verse.

<sup>†</sup> "Posthumous Humanity." By M. D'Assier. Translated by H. S. Olcott. London: 1885.

<sup>‡</sup> A meter in prosody is comparable to a bar in music. A foot is the ultimate unit of measure, be it dactylic, iambic, or trochaic, etc. Iambic meters (or bars) consist of two feet, — — — — —; but in the dactylic hexameter, a meter has but one foot.

\* The first bold (—) in the middle of the hexameter, corresponding to the *cæsura*, is moveable.



## THE OPEN COURT.

Mathematics is the prosody of the Universe. It explains to us the laws that control the rhythmic harmony of the great world-poem, as well as those that regulate the beating of the human heart. And in introducing, here, the science of mathematics into the domain of poetic art, we can choose no more appropriate form than the most elegant metrical creation of Greek antiquity—the elegiac distich.

## PREPARATORY REMARK.

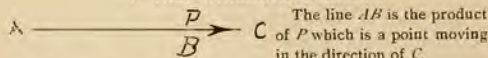
Throughout the following cycle of twelve epigrams, all the similes are strictly applied in such a way as to preserve the same meaning in all instances. The mathematical line, being the product of a moving point, is a symbol of life. The plane, being produced by the second power ( $a^2$ ), represents love which widens man's interests and affords a field for his activity. The cube being the third power symbolizes family life; it is the solid building-stone, the living material which raises the dome of humanity.

An angle represents the inclination between two lives; and a triangle accordingly symbolizes a fixed relation. If the inclination of the two sides is that of a right angle, the hypotenuse represents the affection that two individuals bear to one another; the hypotenuse is the basis of their relation.

The circle naturally appears as the sphere in which an individual lives; it is one's self-hood, and the whole world of personal interests. Accordingly, among the trigonometrical functions, sine represents the other side of the right-angled triangle in its relation to the radius of one's world; tangent and co-tangent are the relations of the two connected lives to each other; and secant (being the hypotenuse of a right-angled triangle) is that mutual affection that carries the individual beyond the circle of self-hood.

The leading idea of these verses is expressed in the last epigram as being the perfect unity of order and reality, which is seen to be a congruence of mathematical and mechanical law with all the facts of existence, thus perfectly harmonizing the logical thought of our brains with the deepest emotions of our hearts.

## 1. THE MATHEMATICAL LINE.



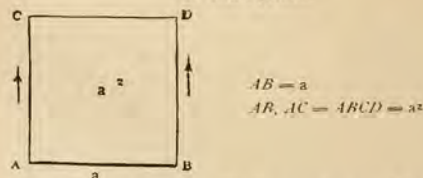
LIFE is a function that comes from, and wanders to, infinite regions.

A geometrical point, constantly moving along,

Ever producing a line on the path of unlimited progress.

Past and future at once are in the present contained.

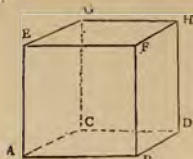
## 2. THE SQUARE.



LOVE is a life to its square. 'Tis the second potential that widens Man's aspirations; the plane gives his endeavors a field.

## 3. THE CUBE.

$$\begin{aligned} AB &= a \\ ABCD &= a^2 \\ ABCDEFGH &= a^3 \end{aligned}$$



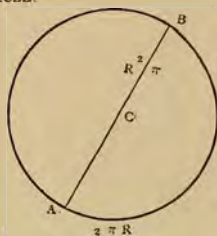
WEDLOCK is life to its cube. It expands in substantial importance  
Based on the square of our love, happiness solid appears

## 4. THE TEMPLE.

LIFE to its cube is the hallowed home of a family circle,  
Where in the fireside glow new generations arise.  
Thus will the cube be employed as a stone for the grandest of structures,  
And its spontaneous growth buildeth the temple of man.

## 5. THE CIRCLE.

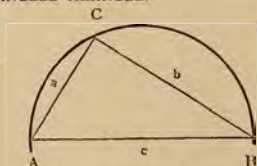
$$\begin{aligned} AC &= CB = R \text{ (Radius)} \\ \text{Circumference} &= 2\pi R \\ \text{Contents} &= R^2 \pi \end{aligned}$$



THOU art the central idea of all my thought and existence,  
If, o my love, in thy life I the circumference were,  
How concordant the circle would close as by magic agreement!  
Aptly, two fortunes would be spell-interwoven in one.  
Call it whatever you choose: alliance, love, harmony, concord,  
Duty, fulfillment, or bliss—none of the terms will suffice.  
Try to decipher the problem and, then, if you search for its reason,  
Learn! it is ruled by the law holding control of the world.

## 6. THE RIGHT-ANGLED TRIANGLE.

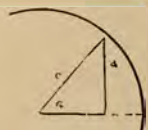
$\angle ACB = 90^\circ$  or a right angle.  
 $c$  the hypotenuse.  
 $a$  and  $b$  the sides.



LOVE the hypotenuse is and we are the sides, my beloved,  
Our inclination is right, right as the angle between,

## 7. SINE.

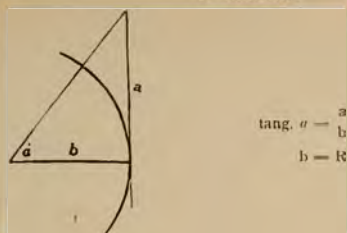
$$\begin{aligned} \sin a &= \frac{a}{c} \\ c &= R. \end{aligned}$$



SINE is thy bosom, adored one, thy heart and thy soul, thy all-being  
As to the radius it stands here in this circle of ours.  
Know that the radius forms the hypotenuse which has appeared as  
Symbol of holiest love. — Radius createth our world.



## 8. TANGENT.

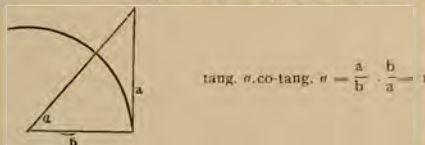


$$\begin{aligned}\text{tang. } \alpha &= \frac{a}{b} \\ b &= R\end{aligned}$$

TANGENT the function is called of the sides that are touching each other;

And in the tangent, my dear, one in the other exists.

## 9. TANGENT AND CO-TANGENT.

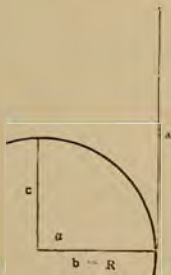


$$\text{tang. } \alpha, \text{ co-tang. } \alpha = \frac{a}{b} \cdot \frac{b}{a} = 1$$

TANGENT, Co-tangent, my sweet one, will ever agree with each other;

Multiplied, lo! their result always is found to be one.

## 10. TANGENT 90°.

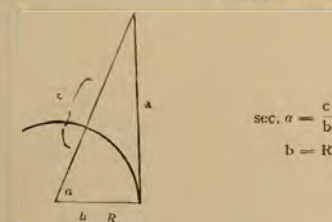


$$\begin{aligned}\text{tang. } \alpha &= \frac{a}{b} \\ b &= R \\ \alpha &= 90^\circ \\ \text{tang. } \alpha &= \infty\end{aligned}$$

TANGENT of ninety degrees expresseth the function of true-love,

Infinite certainly is th' only expression thereof.

## 11. SECANT.



$$\begin{aligned}\text{sec. } \alpha &= \frac{c}{b} \\ b &= R\end{aligned}$$

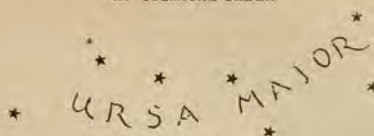
SECANT is cutting the circle of man's egoistic existence

But its relation refers back to the radius of self.

Love has transported my soul outside the domain of the ego

Purer to me it returns gentler and nobler from thee.

## 12. COSMICAL ORDER.



The laws of nature are:  
the mathematical thoughts of God.—Plato.

All the celestial bodies move strictly to laws of mechanics,

These are computed with care by mathematical minds.

But no lesser, my love, is the orderly law of our bosoms:

E'en in the depth of our hearts lives mathematical rule.

## HOW FAR DOES SCIENCE GIVE US CAUSES?

BY WILLIAM M. SALTER.

(Continued).

Another instance puzzles me. It happens to be one to which Dr. Carus makes special reference. It is the production of water. Dr. Carus justly says that so far as its material particles go, it has not been produced. They and their weight are the same as before. Water is simply a new form of its elements (and I may say, by the way, that in the significance which Dr. Carus and Mr. Hegeler assign to form, they seem to me to mark a great, an immense intellectual advance on the ordinary scientific thinking of the day). But what produces the form? The combination (the art of combining) of the elements, we are told. I confess I am not perfectly clear what is meant. "A chemist brings hydrogen and oxygen together." Is it the chemist's "art of combining" that is referred to? If so, what takes the place of the chemist in Nature's laboratory? Is the chemist an essential factor in the process at all? Is not the combining going on all the time? Something or somebody combines them—else there is a change without a cause—but what or who is it? In the case of the chemist, he no doubt makes some antecedent movements; but in nature is there any (discoverable) motion, save that of the elements rushing to join one another, which is just the change (in essence) that needs to be explained? Here, too, Dr. Carus will not put us off with so-called "chemical affinity;" for, like gravitation, this is but a generalized statement of the facts and gives not the slightest gleam of light as to what causes them. Is the cause a motion, and is it discoverable at all? No doubt, Dr. Carus is ready with an answer, and I ask, as no doubt other interested readers do, simply for light.

I might cite one or two other instances that give me difficulty; e. g. the formation of a crystal of salt. The pyramids of Egypt are perfectly explicable. They, i. e. their form, are an effect of human labor. How about the minuter structures, quite as complicated, quite as regular, quite as wonderful, that are being constantly produced without the intervention of any human hands? Is it possible that in place of the latter there are infinitesimal hands, and infinitely defter movements than any human hands are capable of, producing the tiny marvels? If not, what is the cause (or causes)? for motion of some sort it must be if the new formula holds good, and motion without something that moves is an abstraction.

Sometimes I am tempted to think that while science is a search for causes, it can only to a limited extent discover them. No one can willingly admit this; yet *a priori*, nothing can be said, so far as I can see, against such a possibility. We did not make the world or our own faculties, and we have to take them as we find them. To admit that there are causes which we cannot discover would not be to assert "the transcendence (or unknowability) of the law of causation." The law of causation is perfectly intelligible; there is no mystery about it; it simply asserts that for every



change, movement, or new state of things, there is a cause. But it does not say what the cause shall be, nor prevent its being undiscoverable. It is the cause that may be transcendent (or unknowable), not the law of causation.

(To be continued.)

[This part of Mr. Salter's article contains several questions, especially about the affinity of elements, the formation of a salt crystal, and the production of water from  $H_2O$ , which, in the editorial answer of this number, "Is There Anything Unknowable in Causality?", have not been discussed. We understand that Mr. Salter expects to hear our opinion on these matters in so far only as they can serve as instances for an explanation of the problem of causality, for we cannot in a philosophical discussion venture on those grounds of natural sciences which are not yet sufficiently explored, and in each case it takes a specialist even to present the problem in a correctly formulated way. Our problem at present is neither that of gravity, or affinity, or crystallogeny, but that of causality, and the purpose of our discussion is fully accomplished if we succeed in making the law of causation intelligible.]

The idea that many mysterious problems will find their solutions by a consideration of form has been discussed on page 1048 of THE OPEN COURT, in a letter on "The Origin of Life and the Problem of Memory." The significance of form will be discussed again, and on a broader basis, in connection with Kant's conception of the *a priori*, as soon as time and space will allow.

We shall recur to Mr. Salter's question as to "What takes the place of the chemist in Nature's laboratory?" and to the other subjects in our next issue, in so far as all these problems have reference to the idea of an animated nature. In reply to another question of Mr. Salter's, about self-motion, we shall discuss, in No. 60, the problem, "Is Nature Alive?"—Eo.]

## IS THERE ANYTHING UNKNOWABLE IN CAUSATION?

IN REPLY TO MR. SALTER.

Mr. Salter says: "The law of causation is perfectly intelligible \* \* \* it is the cause that may be transcendent or unknowable."

In no one of our examples can the causes be called transcendent or unknowable. Every cause is a motion or change of place and although there are many phenomena so complicated that we have not as yet been able to discover their causes, we are quite sure that the causes exist and that they are motions of some kind, ascertainable and measurable.

The cause, being a motion, is, as a rule, not very difficult to discover. The difficulty commences when we begin to search for reasons. In order to discover the cause of a phenomenon we have to observe the progress of motion, first the touch of the key on the piano, then the rising of the hammer, the vibration of the chord, the vibration of the air, then of the tympanum, then the irritation of the auditory nerve, and the perception of sound. In order to know a cause we must either directly or indirectly experience it. A cause is a fact, an event, an occurrence, that must be stated. Our reason, which is the faculty of comprehending, is called into action when we ask for an explanation of the fact. This explanation is something quite different from the cause of a phenomenon, for it is not a motion, not a single event, not a separate occurrence but a general law or an abstract rule, a formula that comprehends all possible instances of the same kind.

In former ages skepticism was more powerful and indeed more justified than it is to-day. The relativity of knowledge seemed to take all vigor out of science. The human race was recognized to be limited to this earth; how could a man dare to hope ever to know of what the sun and the stars consist! The impossibility of any knowledge of that kind appeared obvious. Man's eye is so constructed that the impressions of light require a certain time and

intensity; how can he ever expect to have information about the path of the lightning-flash or about stars whose light is not intense enough to impress the retina? The impossibility of any conception of that kind seemed plainly demonstrable. Man's ear can perceive sounds of certain pitch only; if they are too high or too low they will pass by unnoticed. These imperfections necessarily seemed to preclude man from any knowledge that lies without the range of his sensory organs, which are the basis of all his cognition. And yet, a few simple inventions have admitted us to all these seemingly inaccessible laboratories of nature. It is this very relativity of our knowledge, so often impugned, that allows an indirect, yet very reliable, apprehension where a direct observation is impossible.

Causes are facts of nature; and although it requires much ingenuity and critical discrimination, it is nevertheless comparatively an easy task, to trace them in natural phenomena. Our senses may prove dull in many subtle cases, but instruments for our assistance have been and will be invented. There is nothing to be comprehended in facts, they have simply to be stated. But the statement of the causes in a phenomenon is the raw material only with which science works. The causes of a phenomenon being known we search for its reason. The reason why the chord produces a certain sound must be sought in peculiar qualities of the chord and its surrounding air; perhaps also, in the manner in which the chord is struck by the hammer. The chord possesses elasticity and has a certain tension. Strings not possessing these qualities will produce other or perhaps no sounds whatever. If certain qualities are proven to be the conditions of the effectiveness of the cause, we can easily formulate this knowledge into an abstract law which will serve as an explanation for all instances of the same kind.

The word cause is frequently used to designate what we have defined as reason or *raison d'être*, although both ideas are essentially different things. And the license of language which has sanctioned this confusion, produces many most perplexing problems. Now, considering that causes are comparatively easy to ascertain, while most reasons, even of the simplest phenomena, can be found only with great difficulty, it seems probable that Mr. Salter means "reason" not "cause," when he says: "It is the cause that may be transcendent." The reasons of innumerable phenomena of nature are still unknown and are supposed to be unknowable by minds of mystic disposition. But their being unknown by no means justifies us in considering them as unknowable. The successful solution of so many perplexing problems should encourage our scientists to devote their efforts to those problems which appear hopeless to us now.

But the problem whether there is anything unknowable in causation lies deeper still. When dualistic philosophers so confidently speak of the Unknowability of a First Cause, they undoubtedly mean the ultimate *raison d'être* of phenomena, which would be the most general and therefore universal law, under which all the other less general laws had to be classified, and from which they will find their explanation.

If a group of phenomena is classified and formulated into a law, this law represents the reason why these phenomena occur. But with this the task of science is not yet exhausted. For our law representing the reason why, demands in its turn an explanation also, and we ask again what is the reason of this law. When we succeed in finding a reason for this law, it will be seen to be a more general law which shows that the first formulated and less general law is only a special and perhaps at the same time a complicated instance of other, simpler phenomena with which we are more familiar.

Let us take, for example, the phenomenon referred to by Prof. Mach on page 1175 of THE OPEN COURT. "Smoke rises into the air." \* \* \* We formulate a law that "heavy bodies



tend downwards and light ones upwards. It soon turned out however that even smoke had weight, and that it was forced upwards only because of the downward tendency of the air, as wood is forced to the surface of water because the water exerts the greater downward pressure." Thus many cases and formulas of quite different phenomena, which at first sight seemed to be irreconcilable, are comprehended under one more general law. Science went further. Newton discovered that the fall of a stone toward the center of the earth and the circuit of the moon around the earth could be classified as two instances of one and the same law, which has been called by one word—*gravitation*. Gravitation has so far solved very intricate problems. It has solved them, because we can think of many phenomena together as being produced by one and the same quality of matter. We thus "economize our thought" (as Professor Mach would express it) and, to use Professor Kirchhoff's words, we are thereby enabled to "describe certain phenomena of motion in the most simple and comprehensive way."

Gravitation, which is not as yet explained, can just as little be considered the *omni* of our knowledge in physics, as the idea of affinity is the *ultimatum* of chemistry. Gravitation demands its explanation also; and some scientists have ventured on the hypothesis that both affinity and gravitation are explainable from attraction. Gravitation would be the mechanical attraction between two masses, while affinity should be called molecular attraction. Even if this is true, we are still very far from seeing the *how* and *why* of this hypothesis, so as to propose it as a consistent and obvious theory.

The further modern science progresses, the more is the conception of monism realized, which teaches the unity of truth. All the different truths appear as so many applications of one and the same law. Now, suppose that we were in possession of all truth; the whole universe would be mirrored in our mind, methodically arranged. All the formulas and laws of the different sciences would be recognized to constitute one great system, and one law would be seen to pervade the whole. This supreme law being the most general would represent the ultimate *raison d'être* of all the other laws and it could not, in its turn, be reduced to a still more general law. Accordingly, the modern agnostic says, it is unknowable and it must be transcendent.

Agnosticism is the latest revival of skepticism. The old skepticism declared that we could know nothing: all knowledge is mere opinion, objective truth does not exist. Agnosticism marks in so far a progress as it limits transcendence to the "First Cause"; or, as we would express it, to the ultimate *raison d'être* of the world. There would be no objection to the agnostic idea, if the ultimate *raison d'être* were declared to be the limit of knowledge, the point where our investigation would naturally come to a halt. But then we must know that the whole of reality, with all its inexhaustible wealth of problems, lies within the bounds of knowability, while beyond that limit is empty nothingness.

Mr. Spencer says:

"For, if the successively deeper interpretations of nature which constitute advancing knowledge are merely successive inclusions of special truths still more general, it obviously follows that the most general truth, not admitting of inclusion in any other, does not admit of interpretation. Manifestly, as the most general cognition at which we arrive cannot be reduced to a more general one, it cannot be understood. Of necessity, therefore, explanation must eventually bring us down to the inexplicable. The deepest truth which we can get at must be unaccountable. Comprehension must become something other than comprehension before the ultimate fact can be comprehended."

Comprehension, it seems, has from the beginning been to Mr. Spencer something different than it is to us. How can it, all of a sudden, change into its contrary? Comprehension is the act of comprehending, or comprising; it is the act of grasping in our mind several things at once, being derived from *comprehendere*, to grasp together. To understand means the same. *Under*, in the Anglo-

Saxon verb *understanden*, has its primary sense of "among, between," as has the German *unter* and the Latin *inter*. *Understanden* means to stand under or in the midst of things, so as to see all the different aspects at once. The Latin *intelligo* (inter-lego) rests on the same figure of comparison. The concept and the word transcendence convey the idea that the solution of all problems should ultimately be sought outside of the world, behind or beyond the realm of nature, so that cognition would be obliged to transgress the sphere of knowability in order to get possession of it.

The ultimate *raison d'être*, far from being transcendent, would denote the most immanent quality of things. It would be the most obvious and most simple truth of which all other cases would be more complicated instances, for it would be used to account for all. Certainly, it could not be deduced from a more general statement, and in so far it would be "unaccountable" and "inexplicable." But at the same time there is no doubt that we would need no explanation, and in so far as this could be proven, it would be accountable and explicable.

It would be a great error to imagine that if we knew this most general law we would be in possession of the key to all the problems of the world. We must not forget that the more a statement is generalized, the emptier the circle of its contents will be of positive information. To know why and how all other instances are special applications of the most general law would be necessary also for their comprehension. Generalization is only one-half, discrimination is the other half of comprehension.

Dualistic philosophers have supposed natural phenomena to be mere shadows of the realities behind phenomena. They looked upon phenomena as visible effects of invisible causes. Cognition, they thought, penetrates through phenomena in order to get a glimpse of the real things. The discovery of natural laws seemed to afford such knowledge of what was considered the real and invisible causes. They appeared as eternal entities behind a transient sham-existence. Taking this view of nature, we shall inevitably come down to mysticism. From this standpoint the truism of the relativity of knowledge would be tantamount to a confession that real knowledge is impossible.

Monism rejects this dualism. The monistic view is positive, and positivism accepts natural phenomena as facts. There is no difference between primary, remoter, and ultimate facts. There is but one kind of facts: such as are real. Real facts, natural phenomena, are at the same time primary and ultimate facts. Knowledge of facts means that they are, as it were, mirrored in our minds. To know a thing means that its image exists in our brain as a feeling nerve-structure, which occasionally can become conscious. Comprehension does not go and cannot go beyond facts, but is simply a matter of systematic arrangement. A consideration of this kind, it must have been, that induced Professor Kirchhoff to omit the word "causes" in his definition of mechanics. His work, published 1875, commences with these words:

"Mechanics is the science of motion. Its object we define to be this. To describe with *exhaustive thoroughness* and the greatest attainable *simplicity* the motions that are taking place in nature."

In his inaugural address upon entering the Rectorship at Heidelberg, in 1865, Prof. Kirchhoff had spoken of "the causes that condition motion." The omission of the word cause, therefore, marks a progress from metaphysics (or at least the possibility of metaphysics) to positivism. All our knowledge is a description of facts, and all our comprehension is economy of thought, through greater simplicity combined with exhaustiveness.

The law of causation applies to all natural phenomena, but not to nature as a whole; it accounts for the single things as such, *i. e.*, it explains why they appear in these special forms. But the law of causation does not apply to existence in *abstracto*. Abstract existence can have no cause; abstract existence is simply the statement of the self-evident fact that existence exists.



If there is anything transcendent, it is these facts themselves in their stubborn reality. All their relations are knowable, all their qualities can be explained, and their forms accounted for; but their abstract existence, why they are at all, why anything and the whole world exists, remains and will remain what it always has been—a fact. If this absoluteness of facts is to be called transcendancy, we must confess that transcendency and immanence are two aspects of one and the same thing, for there is nothing so immanent in the world as its reality or the fact of its existence.

P. C.

## THE STONE'S FALL.

IN REPLY TO MR. SALTER.

We must recur to Mr. Salter's instance of the stone's fall once more, because of an expression in our reply (p. 1241, first column, lines 32 and 33), which cannot but be misleading. "Being suspended" conveys the idea that there is no motion or change of place at the moment when the stone reaches the highest point of its rise. The fact is that the stone from the beginning of the throw to its subsequent descent never ceases to be in motion, although the velocity of its ascent is constantly decreasing and when it becomes zero, the direction of its motion upwards is changed into a downward direction.

The whole phenomenon is a combination of two forces acting upon the stone: *first*, that of the throw, which is caused by the effort of my hand; and *second*, that of gravity, which is\* the downward pull towards the earth. The force of gravitation is continually acting upon the stone; but, inducing in the stone a less momentum at the start than the momentum imparted by the throw, the stone rises. The momentum produced by the force of gravity in the direction of the earth is continually and rapidly increasing and will soon be greater than the momentum produced in the upward direction by the throw, which remains constant. When the stone reaches the highest point of its rise, the momentum induced by gravity has become equal to the momentum imparted by the throw; the stone *seems* to rest for an imperceptible moment before falling; but it is just as much in constant motion as if it were thrown in a curve; *there is no new cause interfering, nor is any new force called into activity.*

Causation is the progress of motion. The progress of motion takes place under certain circumstances, (which on page 1201 have been called conditions, if they are indispensable). The circumstances in this case are the mass of the stone, its distance from the centre of the earth, the mass of the whole earth, the acceleration due to gravity, the resistance of the air, etc. An inquiry into these things and their qualities would afford us the *reasons* of the stone's fall; and these reasons, of course, are not motions; they are formulated as natural laws. The circumstances, being certain qualities, are in this case, as in most others, productive of additional motion; potential energy is changed into kinetic energy. But without a preceding change of place this would be impossible; there must be a motion (a change of place) of some kind, to *cause* such a change.

An avalanche would lie for all eternity on the Alpine ridge if it were not started by some motion. But under certain conditions the flapping wing of a bird might suffice to hurl the whole mass down, thus creating kinetic energy of an enormous amount through an almost imperceptible cause. No phenomenon in nature without a cause; and the cause is always a change of place, a motion of some kind.

P. C.

\* The downward pull is not *caused* by gravity; it *is* gravity. Gravity is a quality that always exists in and with things.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

## CHAPTER XXIV—Continued.

The Chamberlain had extricated the Prince from the throng after the first encounter. The latter was sitting in his room, pale and dismayed at the consequences likely to ensue from the unfortunate incident. The Chamberlain also was terrified, for the responsibility of this fracas would fall upon his head. Besides this he felt real sympathy for the young Prince, who so deeply felt the insult to his honor, and who, with a fixed and saddened gaze, received no comfort from the assurance that his princely honor could suffer no more injury from these plebeians than from the sparrows on the tree.

After a sleepless night the Prince received the leaders of the Markomanns, who came to announce the decision of their corps. They stated that their senior officer, Beppo, had been chosen to represent the Prince in all further dealings with the Arminian, and he, Beppo, chivalrously begged him to concede to him this honor; he added that, in the opinion of his association, the Arminian had no claim to the privilege of receiving a challenge in consequence of that vile insulting word, and if the Prince should refuse any further participation in the matter, the Markomanns would take all the consequences on themselves. But they could not conceal from him that they alone held this view, nay, even some of their own corps had objected. All things, therefore, considered, they thought the best course would be for the Prince to make this concession—the greatness of which they undoubtedly deeply felt—to the academical custom.

The Prince had not yet recovered his self-possession, so the Chamberlain begged the gentlemen to allow his Highness some hours for reflection.

Meanwhile our student, who had been restrained by the consideration of his academical duties, and had kept aloof from any personal implication, in great perplexity went to the Doctor with this news, as in this affair he could not venture before the Rector. The Doctor hastened to his friend, who had already had an account from the beadles and the police.

"As regards the personal conflict of the Prince, I have as yet received no notice, and it is perhaps desirable, both for him and the University, that it should not be entered into. I shall be watchful and endeavor to provide against further consequences; and I shall perform the duties of my office in every direction in the strictest way; but do your best to prevent my learning any details of this affair, except what may give me just ground for taking official steps."

The Chamberlain was almost in a similar quandary as our student; he also went full of anxiety to the Doc-

\* Translation copyrighted.



tor, related the quarrel, and asked what the Doctor considered was the duty of the Prince, and whether he ought to allow himself to be represented in a duel.

The Doctor replied, with some reserve: "Duels are senseless and wrong! If the Hereditary Prince is imbued with this view, and is willing to take upon himself the consequences to his own life, and at some future day to his government, I will be the last to oppose this martyrdom. But if your young master is not free from the prejudices of his class, and has been impressed with the idea that there is a certain honor for cavaliers and officers, which is different from that of men of honor in general, and which, in certain cases, makes a duel necessary, if your Prince is going to decide the question upon these grounds, and in future govern according to such views, in that case I will unreservedly acknowledge that I cannot allow him the right to set himself in opposition to the ideas of honor of our academical youths."

"Then you are of opinion," said the Chamberlain, "that the Prince must consent to the offer of a representative?"

"I have neither the right nor the wish to offer an opinion," said the Doctor. "I can only say that the idea of a representative does not please me. It appears to me that the affair is simple,—either reason or personal courage."

The Chamberlain rose quickly. "That is quite impossible; it would be an unheard of deviation from custom, and would produce new and painful complications for the Prince; it is also entirely contrary to my convictions of what is allowable to a royal prince, and under no considerations can the proposition be further entertained."

The Chamberlain went away not much pleased with the radical views of the Doctor. On his return home he said to the Prince:

"The affair must be settled quickly before your father can learn of it. Your father, considering the social standing of your opponent, would positively prohibit any concession on your part; and yet I see that the future intercourse of your Highness with the body of the students, and even perhaps other personal relations, will be greatly endangered if the public opinion here is not in some measure satisfied. If, therefore, I may counsel your Highness, it will be to make a great concession, and accept Herr von Halling as your representative."

The Prince looked down, depressed, and finally said: "That will perhaps be best."

The great leader Beppo, one of the best swordsmen of the University, was to fight for the Hereditary Prince. But now it appeared that the Arminians were by no means satisfied with this idea of a representative, and raised the impudent pretension that the

Prince should himself appear before them in fencing attire and cambric shirt. The stout Ulf, for instance, the originator of the whole embroilment, declared that he found the Markomann leader also on his list, and he would not renounce the delightful prospect of having a pass with that gentleman in his private capacity.

This could not be denied. Meanwhile a large council of seniors, which the Markomanns had quickly called together, decided that a substitute should be allowed to enter the lists for the Prince. On the other hand, their cunning proposition that the Arminian should first enter the lists against the other men of their corps, was declined. They wished by this to relieve the Prince of the whole affair, as it might be assumed that even the great strength of the Arminian would be exhausted before half the names on his list were cancelled. Nothing, therefore, remained but for the two combatants to fight together at two different times, the Markomann, in the name of the Prince, first.

"We shall do our best to make the second meeting unnecessary," said the Markomann significantly to the representative of the Arminian, on the breaking-up of the conference.

Every precaution was taken to keep the fatal duel secret; only those concerned in it knew the hour: even to their near associates another day was spoken of; for the beads were watchful, and the University had been called upon by the highest authorities to avert further consequences by all means in their power.

The day before the duel, the Prince invited the Markomanns to dinner, and there was so much talk upon relevant matters that the Chamberlain felt decidedly uncomfortable. Shortly before the breaking-up of the party, the Prince was standing with Beppo in a recess of the window; suddenly he seized the hand of the young man, held it fast, and his frame was violently convulsed with suppressed sobbing. The valiant youth looked at the Prince much moved.

"All will go well, your Highness," said he, consolingly.

"For you, but not for me," replied the Prince, and turned away.

As towards evening the Hereditary Prince walked restlessly through the rooms, the Chamberlain, who also wished to be relieved from his troubled thoughts, proposed that they should that evening pay a visit to the Rector. This was the only place where he was sure to hear nothing of the disagreeable history, and he was sharp-sighted enough to guess that this visit would be particularly agreeable to the Prince.

Ulf knew everything. Our student friend, who had involuntarily played the magpie, creating mischief between the parties, still haunted the neighborhood; he ventured, on one of the student evenings, to remain behind with Penelope when the others went into



the Rector's room; he related the whole quarrel, described the dangerous position of the Prince, and begged her to say nothing of the occurrence to her husband. When, therefore, the Prince entered, a forced restraint and uneasiness was manifest in those present. The Chamberlain was more charming than ever, and related agreeable Court stories, but without effect. The Prince sat embarrassed in his place, next to Ilse; he felt the seriousness of even her friendly words; he saw how sorrowfully her eyes rested upon him, and when they met his he turned quickly away. At last he began, with unsteady voice:

"You once showed me the portraits of famous men that you have; may I ask you to let me see the volume again?"

Ilse glanced at him and rose. The Prince followed her, as before, into the next room. She laid the volume before him; he looked over it without interest, and at last began, in a low tone:

"All I wished was to be alone with you. I am helpless and very unhappy. I have no person on earth who will give me disinterested advice as to what I shall do. I have given offense to a student, and have been bitterly insulted by him. And I am now compelled to allow another to fight out the quarrel for me."

"My poor Prince!" cried Ilse.

"Do not speak to me of it, gracious lady, with the feelings with which a woman would regard it, but speak, as if you were my friend in advice. That I should burden you with my troubles makes me feel at this moment contemptible to myself, and I fear I seem so also to you." He glanced gloomily down.

Ilse spoke softly. "I can only say what is in my heart; if your Highness has done an injustice, apologize for it; if you have been insulted, forgive it."

The Prince shook his head.

"That would be of no use, it would only disgrace me afresh in my own eyes, and those of all others. It was not on that point that I ask you. Only one thing I wish to know; ought I to allow another to fight my battle because I am a prince? All say that I must do it; but I have no confidence in any, only in you."

The blood mantled in Ilse's face. "Your Highness lays a responsibility upon me that frightens me."

"You once told me the truth," said the Prince, gloomily, "as no one on earth has yet done, and every word you spoke was good and from your heart. I therefore now pray you to give me your honest opinion."

"Then," said Ilse, looking at him eagerly, while the old Saxon blood boiled in her veins, "if your Highness began the quarrel, you must end it yourself like a man, and you must yourself take care that it is done in an honorable way. Your Highness ought not to

allow another to brave your opponent and endanger himself on account of the wrong you have done. To lead a stranger to wrong, to compel another to risk his life, while you quietly look on, would be worst of all!"

The Prince replied, dejectedly:

"He is courageous, and superior to his adversary."

"And does your Highness think it right to take advantage of your opponent by the powers of one who is stronger than yourself? Whether your representative wins or loses, you will be more indebted to him than you ought to be to a stranger; and through your whole life you will be burdened with the thought that he has shown courage, while you have not."

The Prince became pale and silent.

"I feel just as you do," he said, at last.

"Everything of this kind is dreadful," continued Ilse, wringing her hands; "everywhere there seems to be ill-will and thoughts of bloody revenge. But, if it is impossible for you to prevent a wrong, it is your duty to take care that it does not become greater, and that its consequences do not fall on the head of another, only on your own. My heart tells me that you must yourself do, if not what is right, at all events what is least wrong."

The Prince nodded his head, and again sat silent.

"I cannot speak of it to those about me," he began, at last, "least of all to him," pointing to the Chamberlain. "If I am to prevent another from fighting in my stead, it must be done immediately. Do you know any one who can help me?"

"My husband's office forbids his doing anything for your Highness in this affair. But the Doctor?"

The Prince shook his head.

"Our student," exclaimed Ilse; "he is truly devoted to your Highness; he is a countryman of ours, and feels greatly troubled about this matter."

The Prince reflected.

"Will you allow me to have the use of your servant for a few hours this evening, when you no longer need him yourself?"

Ilse called Gabriel into the room, and said to him:

"Do what his Highness desires of you."

The Prince approached the window, and spoke in a low tone to the servant.

"Leave everything to me, your Highness," said Gabriel, as he went back to his tea-cups.

The Prince approached Ilse, who was standing motionless, staring at the book.

"I have looked over the portraits," he said, with more composure than he had shown during the whole evening, "and I have found what I was looking for. I thank you."

Ilse rose, and returned with him to the company.

(To be continued.)



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No. 60. Vol. II.—34.

CHICAGO, OCTOBER 17, 1888.

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## GHOST STORIES.

A STUDY IN FOLK-LORE BY L. J. VANCE.

PART II.

VI. Let us take further, for the purposes of comparison, those stories in which ghosts come in order to give mysterious warnings. Sometimes the ghost is beheld at or about the very time its late owner departs from this world of trouble. At other times, the ghost comes to warn a living relative that the end is nigh. Again, the spirit of a very near and dear friend conveys a warning of coming death or disaster to his former companion. All of these stories are in vogue among people as uncivilized as the New Zealanders, all of them in vogue, also, among folk as civilized as contemporary Englishmen and Frenchmen.

The resemblances between stories of this kind are often very striking. Karen folk-lore accounts for the appearance of "doubles," by the theory that the spirit of the deceased has the power to announce itself whenever it likes. The natives of Madagascar tell similar tales of ghosts seen at their owner's decease, and account for them by a similar theory.\* In his "Traditions of New Zealand," Mr. Shortland gives a native story of this kind.† He says that a hunting party of Maoris started out, leaving behind a sick man of the tribe. Suddenly, while the hunters were sitting around the camp-fire the next evening, a relative of the sick Maori saw the features and form of his kinsman just beyond the light circle of the fire-light. He declared that he saw the spirit of his relative. When the party returned to the *pah*, they learned that the sick man had died about the very time his ghost was seen miles away.

From another quarter of the globe comes a parallel story. This time the story is about Jemmy Button, a young Fuegian, and his father's ghost. It may be found in Fitzroy's "Voyage of the Beagle." "While at sea, on board the 'Beagle,' about the middle of the year 1842, Jemmy said, one morning to Mr. Byno, that in the night some man came to the side of his hammock, and whispered in his ear that his father was dead. Mr. Byno tried to laugh him out of the idea, but ineffectually. He fully believed that such was the case, and maintained his opinion up to the time of finding his relations in Beagle Channel, when, I regret to say, he

found that his father had died some months previously."

It is a "far cry" from Terra Del Fuego to Australia, but none the less recognizable. A story of the ghost of a dead relative warning a Maneroo black fellow of his approaching dissolution may be found in Mr. Lorin Fison's "Kimalaroi and Kurnai." The story was told to Mr. Fison by the gentleman in whose employ the native had died. "The day before he (the native) died, having been ill for some time, he said, that in the night, his father, his father's friend, and a female spirit he could not recognize, had come to him, and said, that he would die next day, and that they would wait for him." Sure enough, the black fellow died, and "kept his appointment with the ghosts to the very day." Although Mr. Fison does not give them, he says, that he could give "many similar instances" which had come within his own knowledge.\*

Such tales have survived in the modern stories of "death-wraiths," of "doubles," or of "fetches." European folk-lore is replete with stories about "fetches" coming to warn persons of approaching disaster or death. There is, for example, a bit of folk-lore concerning an ancient English family to whom ancestral ghosts always appeared before the death of its head. In one case the ghost of a murdered lady wanders up and down the castle halls shortly before any member of the family dies; in another case, a supernatural light blazes from the lofty battlements just before the noble owner's decease.

The following is a typical ghost story of this class: "Many years ago, when an English ship-of-war was one night off the African coast, the officer on the watch became deeply affected in a manner he could not explain, and became partially insensible, and could not rouse himself before a cold hand touched him. He then beheld a white figure walking away. It turned round, and in the face he beheld the features of a brother in England. The spectre, after remaining a few seconds, vanished. On arriving in Great Britain, the officer discovered that his brother died on the very night he saw the apparition."

Sometimes the "double" appears only to warn a

\* Many classical readers will recall the tale told by Cicero in *De Divinatione* [1-27] of the two Arcadians, in which the ghost of one of the travelers appeared to the other and informed his late companion that he had been murdered by the inn-keeper.

\* Ellis, "Madagascar," Vol. I. p. 395.

† Page 140.



person of some impending danger. In the "Memoirs of Georgiana, Lady Chatterton," we have a story of this class.\* Lady Chatterton had gone to bed, but awakening in the middle of the night, she saw the face of her mother,—"the face deadly pale, with blood flowing on the bedclothes." In terror she sprang out of bed and rushed to her mother's room. There her mother lay just as she had seen her, "pale as death, and the sheet covered with blood, and two doctors standing by the bedside." She was then told her mother had passed through a severe crisis, but would not allow her daughter to be called.

I notice in this connection that mysterious knockings and unaccountable noises are taken by both uncivilized and civilized folk to indicate a ghostly summons. The Zulus say that ghosts of this kind talk in a low, whistling sort of a tone.† The same is told by the New Zealanders.‡ According to Pèrre le Jeune, the Alouquins say that these ghosts chirp like crickets.§ But squeaking is the language of ghosts in Polynesia, where, as Mr. Ellis says, the natives are in mortal fear of the sound.|| All these different savage ghosts seem to be related to the *Pötergeist* of German folk-lore.¶ Woe to the unfortunate mortal who heard the rappings of this *Geist* at night round the house, or in the forest, for his days were numbered!

As modern variants of this kind of a ghost story are so numerous, we content ourselves with giving only one parallel. "In the last century a gentleman in England was surprised one night by a sudden knock at the street-door, so loud that he thought an attempt was being made to break it open. Springing from bed, he seized a brace of pistols and was hastening to the door, when a second knock was heard, louder than the first. A third knock followed just as he was withdrawing the bolt, but on looking out not a single person was to be seen, though it was clear moonlight. Next post brought a letter informing him that a *near relative* in London had died just at the time the knocking alarmed him and his family, for they, too, heard the startling sounds." \*\*

Now, I do not suppose that the doors of a Bushman's hut are knocked by spirits, because Australian black fellows have houses without doors. But I do suppose that they have been warned by the ghostly knockings; that they have received the same kind of death messages, as have been reported in the "Proceedings of the Society for Psychical Research."

From a correspondent in Georgia there comes to

me an exceedingly curious story of the negro 'death-wraith.' According to the writer, an old plantation negro, named 'Mose,' for many years mourned the loss of his wife, 'Julee.' 'Mose' continually asserted, however, that the 'sperit' of his 'Julee' would yet make him a 'caul': for, just before she died, she promised to come back and let him know when he should join her in the spirit. One night, 'Mose' was aroused by a gentle tapping against the window. There, pressed against the pane, he saw distinctly the face of his dead wife. She seemed to beckon him to follow her. He felt that he must obey. But the 'sperit' led him a stern chase; all that night he followed the phantom over hill and dale, through forests and fields. The next morning, 'Mose' returned to the plantation utterly exhausted and broken-down. His face was thin and haggard, his clothes were torn in shreds, and altogether he presented a lamentable appearance. Said he: "Yes, massa, las' nite me foller Julee to 'er grave. I'se soon gwine, too." Nothing could rouse the old man from his fit of depression and gloom. He refused to eat, took to his bed, and within a fortnight was once more re-united with his Julee.\*

Another kind of a death-wraith not only does rapping, but speaking as well. A most astonishing story of this class was first printed by Messrs. Gurney and Myers in the *Nineteenth Century* for July, 1884, afterwards reprinted in their volume on visible apparitions.† I give the tale for what it may be worth. It was sent to the authors by Sir Edmund Hornby, ex-Chief Justice of the Supreme Court of China and Japan, and localizes in Shanghai. Sir Edmund begins by telling how it was his habit to allow reporters of the Shanghai press to come to his house in the evening to get his written judgments for the next day's paper. He writes:

"I had gone to sleep, when I was awakened by hearing a tap at the study-door, but thinking it might be the butler, I turned over with the view of getting to sleep again. Before I did so, I heard a tap at my bedroom-door. Still thinking it might be my butler, I said: 'Come in.' The door opened, and to my surprise in walked Mr.—. I sat up and said: 'You have mistaken the door, but the butler has the judgment, so go and get it.' Instead of leaving, he came at the foot of my bed. I said: 'Mr.—, you forget yourself!' He looked deadly pale, but was dressed in his usual dress, and said: 'I know I am guilty of intrusion.' After some parleying with the phantom of Mr.— about coming in the room, the ghost finally said: 'I pray your lordship give me the judgment, for my time is

\* "Memoirs of Georgiana, Lady Chatterton," by E. H. Dering, 1878, pp. 100-102.

† Callaway, "Religion of the Amazulu," pp. 265, 318.

‡ Shortland, "Tradit. of New Zealand," p. 92.

§ "Relat. des Jésuites" Québec, 1858 Ed. [Le Jeune] 1679, p. 43.

|| Ellis, "Polynesian Researches," I. p. 406.

¶ Grimm, "Deutsches Myths," p. 473.

\*\* "Superstitions," etc., by J. Grant. Edinburgh, 1880.

\* See a Scotch story in "Anecdotes of Ghosts," etc., by the Ettrick Shepherd in Fraser's Magazine, January, 1855. "The story of David Hunter and Phemie Hewitt."

† Phantasms of the Living." By Edmond Gurney, M.A., Frederic W. H. Myers, M.A., and Frank Podmore, M.A. 4 vols. London, 1886.



short!" and ended by saying: "This is the last time I shall ever see you anywhere." Sir Edmund gave the points of his written judgment to the apparition who took it down in a note book. Then the ghost excused his intrusion, opened the door, and went out. Sir Edmund says that his wife was awake by this time on account of the noise made by the interesting colloquy above set forth. He told her then what he had seen.

The next morning he went to Court, and one of the first things he learned was the death of Mr. —. And it turned out that his decease was some time about the hour Sir Edmund was holding animated conversation with the wraith. He of course talked over the astonishing coincidence with his wife.

"As I said then," he writes, "so I say now, I was not asleep but wide awake. After a lapse of nine years my memory is quite clear on the subject. I have not the least doubt I saw the man—have not the least doubt that the conversation took place between us."\*

"I have not the least doubt I saw," etc. In this way the philosophy of "ghost-seers" is satisfied, and would thus impose its conclusions upon those who hold a far different philosophy. When the ghost-seer says, "Can I doubt the testimony of my own eyes?", "Is not 'seeing believing'?", he is apt to think that he has proved his case. He is right, and he is wrong: right in holding fast to the evidences of his own senses; wrong in trying to make other persons doubt the evidences of their own senses. It is urged, and urged very correctly, that, because some persons cannot see things materialize out of nothing when others *do see* such things, proves nothing. *Ergo*, you who do *not see* and hear ghosts or "doubles" should not hesitate to believe in their existence. We accept the premises, but dispute the conclusion. The keen-sighted Montaigne met this very argument at a time when the witchcraft delusion was rife throughout all Europe. It is far more probable, said he, that our senses should deceive us, than that an old woman should be carried up the chimney on a broom-stick; it is far less astonishing that witnesses should prevaricate than that witches should perform the acts that were alleged of them.†

But the point to which I wish to call attention here is, that the students of "visible apparitions," of "phantasms of the living," and of kindred phenomena, have not gone about in the right method. Thus, "The Society for Psychical Research," in England, set out with the express purpose of throwing light on a dark and mysterious subject. Yet, it has done little real work, except to collect a voluminous and heterogeneous

mass of ghost stories, of little use to anybody till it is thoroughly sifted and arranged. Then the Bishop Carlisle took up the subject where the Society left off, and, in several very scholarly papers in the *Contemporary Review*, attempted to give a solution.\* Plainly the Bishop's argument is colored throughout by his positive religious bias. He argues that, a "spiritual being should be able to hold converse with the spiritual part of men without the use of those *avenues* which the senses supply." Again, his theory of visible apparitions proceeds upon the "supposition of some kind of intercourse taking place between the spirit of one departed, and the *spirit of a living man*." May it not be, he asks, "that a communication made directly by one spirit to another may seem to arise from that action of the senses to which *mental impressions are usually due*?"† We reply that it may be, *provided* the good Bishop's theory, of some kind of intercourse taking place between the spirit of one departed and the spirit of a living man, is *true*.

Lastly, we notice the labors of the late Edmund Gurney and Frederic W. H. Myers in this fascinating field of a psychical study.‡ For a while these two inquirers were content to gather and to arrange the mob and rabble of ghost stories which pressed on them. As long as they did this, their studies had popular interest. But soon they soared into the region of metaphysics, and then we began to have fine theories about "thought-transference," "internal economy," "percipient," etc. They are responsible for a new word, *telepathy*—and a very good and useful word it is, too. However, their theory of "ordinary death-wraiths" is, that they are "dream-like projections from the mind of the percipient." Their latest thesis is stated thus: "*some of those hallucinations of one or more of the senses which correspond with objective events at a distance, and which, therefore, we term veridical, are caused by a telepathic impact conveyed from the mind of absent agent to the mind of the percipient, and rendering itself cognizable by the percipient senses in various stages of externalization, and with various admixtures of a dream-like or symbolical element.*" We claim that these theses possess the *prima facie* characteristic of a true scientific generalization.§

Now, let me here remark that there is a science—the science of folk-lore—which collects and compares the stories of different people, of the Folk, the same as Philology compares the speech of different tribes or different races. Which *method* is the more scientific?—a method which studies ghost stories without paying

\* See *Contemp. Rev.* for January and September, 1884. "Thoughts About Apparitions."

† *Contemporary Rev.* [Vol. 16, p. 17.]

‡ Besides the book already mentioned, Messrs. Gurney's and Myers' articles are principally in *Nineteenth Century Magazine*, vols. 15 and 16, and *Pearl's Review*, vols. 36, 39, and 40.

§ *Nineteenth Century*, v. 16, p. 670

\* Some of the details of Sir Edmund's story have been called in question. See *Nineteenth Century*, Vol. 16, p. 851.

† See Defoe's amusing story, "True relation of the Apparition of Mrs. Veal." Also see Prof. Newcombe's paper in *Science* [Vol. 4, 524], "Can ghosts be investigated?" for another view of the question.



any attention to the ideas out of which ghost stories were evolved; or—a method which would show that stories of ghosts are, for the most part, natural enough among the uncivilized, which would find out what points such stories have in common with similar tales current among the civilized? The notion does not seem to have suggested itself to psychical inquirers that the larger part of the modern ghost story is a "survival." Nor do these inquirers take into account the fact that, rude savages and untutored peasants are still in the ghost-making stage of the human mind. Consequently, it is through sheer neglect of this fact how, and by what manner, ghost stories are really made, that their fine-spun theories of spiritual intercourse between spirits of the dead and spirits of the living, come to naught.

VII. Let us conclude this class of stories by taking, for comparison, a famous ghost story which has puzzled the brains of not a few psychical inquirers. To the student of comparative folk-lore the point and moral will be sufficiently clear. The story I allude to has been recently told at very great length by the Rev. F. G. Lee, in his volume entitled "The Other World; or, Glimpses of the Supernatural."\* The gist of the tale is that a Lord Tyrone and a Miss—both being minors and orphans, were brought up together by the same guardian. They had (as with most young people) many discussions about immortality, the soul, and a future life. The outcome of their talk was that they made an agreement that whoever died first should appear to the living and declare "what religion was most approved by the Supreme Being." Miss—married a Sir Martin Beresford, and for a long time neither she nor Lord Tyrone showed any disposition to die, or to communicate the approved religion. Finally, one night the ghost of Lord Tyrone appeared to Lady Beresford, told her the future, although little was said about religion. "The ghost," said Lady Beresford afterwards, "struck my wrist. His hand was as cold as marble; in a moment the sinews shrank up, every nerve withered." Ever after that eventful night Lady Beresford wore a black ribbon round her wrist to hide the ghostly mark. "The black ribbon," says Dr. Lee, "was formerly in the possession of Lady Betty Cobb, who, during her long life, was ever ready to attest the truth of this narration."

Now, I do not know whether Dr. Lee ever read Crabbe's long poem of "Lady Barbara;" if not, he should have done so. The story is good, even though the lines be badly rhymed. In Crabbe's poem we are told how Lady Barbara and her brother read "every book, from crabbed Hobbes to courtly Bolingbroke"; how the two made a compact to reveal the truth of the spirit-world; how one night the ghost of the brother

came, and said "The word reveal'd is true; enquire no more." But list, in bidding me adieu, says Lady Barbara,

"A nameless pressure on my wrist was made,  
Then for that token on my wrist—'tis here,  
And very slight to you it must appear;  
Here, I'll withdraw the bracelet—'tis a speck!  
No more! but 'tis upon my life a check!"

It seems that the ghost forbade her to marry a second time,—another "check" upon her life. Although old enough to be mother of her lover, the widowed Lady Barbara defied the ghostly "check," and married just the same. But where did Crabbe get the story? The editor of his life and works informs us that "this tale was suggested to Mr. Crabbe by a Wiltshire friend, in which county the story is a most popular one."\*\* This may all be so, but the story was popular in France, for example, long before the days of the poet Crabbe.

A variant of the Lady Barbara tale may be found (with the wrist part left out) in the celebrated Duchess of Mazarin ghost story. The Duchess and Madame de Beauclair were schoolmates together. They read and speculated a good deal about the future life. Ere these titled ladies graced the Courts of King Charles II., and of his successor, James II., they made a compact, in which it was agreed that whoever should die first, would return and give the survivor an account of "what was doing in the other world." When the Duchess fell sick, Madame de Beauclair reminded her of the compact. Her Grace replied that she might depend upon her fulfilling her part. That was their last conversation. Years passed, so the story runs, and no voice or sign came from the dead. But one evening Madame de Beauclair was sitting alone, when, lo and behold! before her stood the form of the departed Duchess. The figure moved through the room, approached, touched her hand, and said, "This night, between the hours of twelve and one, you will be with me." The spirit then vanished away in thin air. At once Madame de Beauclair sent for her friends, and summoned a clergyman to administer spiritual consolation. "Talk not to me," said Madame, to those who tried to dissuade her from giving any attention to a delusion, "with the view of making me believe that my eyes and ears have deceived me. My time is short, I know I have seen the Duchess of Mazarin, and am convinced that her words will come true." Yet Madame continued in seeming good health, till twelve o'clock, when suddenly her countenance began to change, and before the hour was out, she was in spirit, at least, with her dear friend, the Duchess of Mazarin.

Now, I do not know whether these two ladies ever read William of Malmesbury's book. Perhaps not; but if they had, they would have found therein a tale

\* "The Other World," etc. By Rev. F. G. Lee. 2 vols. London, 1886. p. 52, et seq.

\*\* The Life and Poetical Works of Crabbe. 8 Vols. London: 1834. Vol. 7. p. 156.



of two "Clerks" in Nantes. The one was a Platonist; the other was somewhat of an Epicurean. In order to test the truths of their respective beliefs, they agreed that whoever should die first, would, if possible, come back within thirty days and declare the true philosophy. Some time afterward one of the 'clerks' died, but failed to reveal, within the specified time, whether Plato's "spiritual soul" or Epicurus's "physical soul" might either one be correct, or whether both were false. Suddenly, there appeared one day before the eyes of the astonished 'clerk' the form of his departed companion. The ghost told of his efforts to keep the appointment, but did not undertake to decide between the rival claims of Plato and Epicurus. Witness, that in bidding farewell the spectre let fall three burning drops of blood on the forehead of the philosophical 'clerk.' Whether this was done to keep the clerk from marrying or from Platonic love, William of Malmesbury saith not.

In conclusion, we again ask: Which method throws the most light on all these ghost stories—the psychical method, or the method of folk-lore? By the latter method we find Jemmy Button, a Fuegian, and an English naval officer telling substantially the same ghost story. We find New Zealander and Polynesian hearing the same kind of ghostly rappings to denote the death of a kinsman. We might watch Maneroo black fellow, Southern negro, English nobleman\* and Duchess of Mazarin—all keeping appointment with the ghost on "the very day." We might point to the similar workings of the Australian mind, of the mind of the "ghost-seer," and of the retailer of the gruesome. Is there reason for believing that the rude peasant, the cultivated Madame de Beauclair, the philosophic clerk of Nantes, think more correctly about ghosts and goblins than the uncultivated, unphilosophic Bushman? Modern spirit stories would seem to indicate that folk, high and low, do not always think correctly about the "choir invisible." Truly man is man, women women, wherever we find him or her. Thus, peasant and poet, Duke and Duchess, alike persist in the belief that "death-wraiths," "doubles" or "fetches," live, move, and have their being. Accordingly, ghost stories are found over the whole race, and over the whole world.

(To be concluded.)

#### HOW FAR DOES SCIENCE GIVE US CAUSES?

BY WILLIAM M. SALTER.

(Concluded.)

I agree with the editor of THE OPEN COURT in saying that the *causa sui* of Spinoza is one of the worst self-contradictions in existence. The only possible meaning such an expression can have is that the category of causation does not apply to the object of which such an affirmation is made. It is possible to say that a thing has no cause at all, *i. e.*, that it is self-existent. (1) According

to the materialist, matter is self-existent; to the theist, God is self-existent; and I do not see why this predicate does not belong to the "monist's" conception of the world as cosmos. The monist does not seek to explain the order of the universe; (2) it simply *is*, he asserts, always was and always will be,—in other words, it is an ultimate fact, just as to the theist God is. The childish question, Who made God?, of which some free-thinkers make so much use as a *reductio ad absurdum* of theology, could only come from the uncritical childish mind, which hastily supposes that for everything there is a cause; to the philosophical defender of theism the question has no meaning, just as to the materialist it has no meaning, to ask, Who made matter? The materialist supposes matter never began to be and that it is dependent on nothing else; the theist supposes God never began to be; the "monist" thinks the same of the cosmical order. The category of causation does not apply to these varying conceptions (*i. e.*, of course, from their respective points of view); causation only applies where there is change or something (at least, relatively) new.

If, however, *causa sui* is a self-contradictory conception, what can be said for "self-motion" or "spontaneity," which Dr. Carus says are the predicates or meaning of life? Can a body move itself? If so, what becomes of the definition of cause as motion? If so, there can be change or movement, without any antecedent motion. I agree with the editor in holding that life is not a material object, or substance; Professor Huxley taught me that. But "self-motion" is a most perplexing conception, to say the least; and when it is ascribed to all matter, the world becomes utterly mysterious to me.

Two minor questions occur to my mind, though not strictly germane to the subject of my article. Nature, Dr. Carus tells us, has to meet many failures before realizing the relative perfection of some of her formations. Now a failure ordinarily means that one has an aim and fails to reach it. Are we to understand here that nature has an aim? If so, how does an aim differ from a purpose, which we are told has sense only when it is used in reference to a will? (3) Has nature then a will? If so, how does "monism" differ from theism? I cannot see how such a theory as "failure" is possible in the monist's universe; such a conception would seem to be purely anthropomorphic and to relate only to human ideals. Is it not the object of "monism" to get rid of dualism? But what is idealism, along with the admission of failures, but a kind of dualism? The "monist," it seems to me, would have no idea of the perfect save that which is, (4) though what is perfect at one time may not be perfect at another; anything else would seem to be setting up one's own notions against the order of the universe.

The second difficulty relates to the origin of physiological and other organs. Every organ, it is said, has been produced by its own function, and a function is the *consequence* of a "want." Protoplasm is spoken of as having "a kind of hunger." This may be so. In former days, when anthropomorphism ruled in science (or what passed as science at the time), natural phenomena were often explained by supposing there were causes analogous to sensations and experiences of man's own. The facts of attraction and repulsion were sometimes explained as coming from love and hate, and so on. We are accustomed now-a-days to give the name of mythology to such explanations. It may be we are in the wrong. But is "monism" to conduct us back to mythology again? How does the view that nature is alive and all matter "*besetzt*" differ essentially from the primitive animism, according to which all events happened according to the wants, hungers, and wills of beings like ourselves, and from which the ordinary idea of God is itself a development? I am far from meaning that "monism" would ever give rise to a mythology parallel to the Greek or the Christian, but how does it differ in principle from the animism in which old-time mythology had its roots.

In conclusion, I return to the real question of this paper: How far does science give us true causes? (5) Every one must admit it

\* Lord Lyttleton.



gives us all the causes we know. But does it give us all *there are*? I ask simply; I do not assume to answer. Least of all, have I any other desire than to understand the "monistic" position more fully.

## EDITORIAL REMARKS.

(1) Existence has no cause; existence exists, it is always self-existent. But all things, in their particular forms as such special things, have their causes, and no thing, as such, is without cause.

(2) The order of the Universe can be explained, but not existence itself. Existence need not be explained; it is a fact that must be stated and verified by experience.

(3) Nature has a certain aim: which means that its development tends to a certain definite direction according to the general cosmical order. Nature's aim cannot be called purpose, because a purpose is an aim pursued with consciousness by a will.

(4) Nature knows the *is* only. "Perfection" is an ideal, and as such it is a most important reality which influences the direction of human development; the ideal is the ethical "ought," which is, as Mr. Hegeler has tersely expressed it in a conversation upon the subject, the "*is to be*."

(5) Science gives us no causes; science, after ascertaining and stating the causes of phenomena, propounds natural laws which serve as *raison d'être* to comprehend phenomena. There are many phenomena of nature yet unexplained; but there is no phenomenon of which we can say that it is unexplainable.

## IS NATURE ALIVE?

IN REPLY TO MR. SALTER.

Mr. Salter asks: "Is Monism to conduct us back to Mythology again? \* \* \* If *causa sui* is a self-contradictory conception what can be said for 'self-motion' or 'spontaneity.' \* \* \* Can a body move itself? If so, what becomes of the definition of cause as motion? If so, there can be change or movement without any antecedent motion."

Monism, it is hoped, will not lead us back to Mythology, but will free us from its trammels by explaining it. Mythology, like other errors and beliefs in ghosts and supernatural entities, leads a tough life because there is some truth in it. The Indian looks upon nature as alive; the things that he sees and hears about him, the rustling leaves of the trees, the babbling brook, the passing cloud, and the silently towering rock, all are supposed to possess life like himself. Is he not a part of nature and should not the rest of nature be similar to him? What is the origin of life, if nature is dead?

Science, no doubt, has put an end to anthropomorphic conceptions. We no longer think that thunder is the work of a thunderer and that the wind is a restless spirit-hunter who chases the clouds. But the connection between man and nature has by no means been severed. It has, rather, become more intimate than it ever had been conceived by our ancestors. The evolution theory has proven the kinship between man and animals, and later researches about the origin of life arrive at the result that life has no origin: it must be eternal. The barrier between organic and inorganic nature is broken down, and life is recognized as a fundamental property of matter.

This view of the origin, or rather the non-origin and eternity of life, has been propounded, in England, by Mr. Huxley, and in Germany by W. Preyer, chiefly. The theory of the immanence of life in nature, as we may call it, is the result of purely empirical investigations. *Omne vivum ex vivo* was the essence of the biological investigations of the seventeenth century. But since the microscope has introduced us into the mysteries of protoplasm, our modern biologists have corrected the sentence into: *No living substance but from living substance*. There is no life but from life. The hypothesis of *generatio æquivoca*, of a spontaneous generation of life, of heterogenesis, and of a vivification of dead matter, as it had been supposed to take place in putrid substances, are counted now among the many superstitions of science, which are done with forever.

Our view of life itself has been changed at the same time. Life had been considered as a substance. What life-substance and

mind-substance might be like, were even not long ago objects of serious discussions. Even so modern a thinker as Mr. Spencer discusses the subject and arrives at the conclusion, so characteristic of his agnosticism, that it is a problem too profound for solution.\*

The view of life as being a substance yielded to the belief in a life principle (a kind of life energy), a view which is generally called vitalism. Vitalism, however, had also to be abandoned, and life is now recognized as a phenomenon of nature which depends on the presence of neither a special life-substance nor a life-principle. The phenomenon of life appears, as all other phenomena, if its conditions are present; it disappears, if its conditions are absent, and so far as science now goes, life has never been discovered but as a continuation from, or a development of, prior life.

The new view of the immanence of life in nature makes it necessary to distinguish between life in a broader, and life in a narrower, sense. Life in a narrower sense appears in the two organic kingdoms as vegetable life and animal life. The lowest kind of organic life exhibits irritability, and sensitiveness to light and warmth, etc. In the animal kingdom, sensitiveness develops sensation and consciousness. Life in the narrower sense, or organic life, in all its wonderful forms, has been developed by imperceptible degrees from life in the broader sense. Life in the broader and broadest sense will be found to be more and more uniform, while the highest branches of organic life admit of an almost infinite variety of form. The most primitive and at the same time most intense life must have existed on earth when our planet was still in its gaseous state. The death of this igneous form of life was the birth of the organic form of life.

For the purpose of defining the conception of life in the broader sense in its most essential feature, we cannot better characterize it than as self-motion, or spontaneity.

By self-motion, or spontaneity, we do *not* mean a motion to which there is no prior motion and which thus originates out of itself without a cause, or without another motion. Self-motion is used in distinction from a movement by push. Suppose, for instance, that the sun in its progress happens to cross the path of a comet, and, being the greater mass, attracts the lonely wanderer. If the attraction of the comet is due to a quality of the comet and of the sun, it is self-motion or spontaneous motion; but if both bodies are inert, it is due merely to the push of ether. In either case, whether the motion is spontaneous, *i. e.*, due to an intrinsic quality, or whether it is transmitted by a pressure from without, it could never originate without a cause. A motion of some kind, a change of position, must have happened. This change of position, in our instance the progress of the sun, would be the cause of the comet's self-motion.

One of the several objections against the ether-hypothesis as presented by Le Sage, is that it considers matter as dead and the world as a lifeless mechanism which must be set in motion by pressure from the outside. It was invented in order to account for motion in inanimate masses. Le Sage thought to get rid of the idea of self-motion and of an animated universe. He attempted to explain the Universe mechanically—an error in his time very excusable—and did not see that a mechanical explanation is impossible.

Mechanics is the science of motion. Every motion can be expressed in terms of time and space. Every motion is determined by its path and velocity. Accordingly it can be computed with the assistance of mathematical and arithmetical rules. There is no motion, neither that of live organisms nor that of dead machines, which does not comply with mechanics: self-motion, as well as the transmitted motion of merely mechanical movements, is determined by the law of mechanics. But this truism is not iden-

\* Mr. Spencer sums up his opinion in these words: "In brief, a thing cannot at the same instant be both subject and object of thought; and yet the substance of mind must be this before it can be known."



tical with an explanation of life from mechanical laws. Mechanics is not the *scientia ultima*, the ultimate *raison d'être* of natural phenomena. It only represents one aspect of natural phenomena. A mechanical explanation of the world would be possible, if the world consisted of purely mechanical phenomena. But purely mechanical phenomena do not even exist.\* Mechanics is an abstract science that investigates into the law of motion in its abstractness.

The indisputable truth that the universe with its life and motion cannot be mechanically explained has induced some philosophers to speak of hypermechanical processes in nature as if motions existed that could not be computed by mechanics. The word hypermechanical conveys the idea that it has to do with mechanics of a higher degree where the usual laws of motion are annihilated and some incomprehensible mysticism takes their place to account for certain peculiar phenomena of motion.

The problem under discussion will find further elucidation by a comparison of mechanics with other formal sciences—especially logic. Logic is also an abstract science. It treats of formal thought abstractly. Thought has to comply, and does comply, with the laws of logic. Of course thought does not always comply with the rules of logic; it drops often into illogical fallacies. But that is no exception from the rule that logic expresses the law of formal thought abstractly; for every error in real thought, every wrong conception in our mind, even every material disorder in our brains, will lead to wrong conclusions which appear to sound thinkers as illogical. This exception is no other than that of a machine which is out of order so that its mechanical result, in full accordance with the laws of mechanics, is not what it ought to be.

Great philosophers have tried to understand the universe logically. They were confident of constructing a universe out of pure thought and of deducing existence (or being) from reason. This kind of philosophy, obviously erroneous and yet so natural in its time, is called ontology (from *ὄν, οὐσία, ὄν, ὄντος*, being), because real being or reality was derived from abstract being. The most famous and perhaps most consistent, and grandest system of ontology is that of Hegel, who belongs to the generation following the era of Kant. Yet so little was Kant understood at the time, that Hegel grew prominent and more renowned than Kant ever had been during his life. But the spirit of Kantian criticism grew also; it grew like an oak, slowly but strongly, and one sentence in his "Critique of Pure Reason" so shook the system of Hegelian ontology that it tumbled together like a house of cards. This sentence of Kant's declares that "all knowledge *a priori* is empty and cannot give information about things."

Knowledge *a priori* Kant calls in other places formal or transcendental knowledge, and transcendental in Kant's terminology does not denote anything transcendent or mysterious. Transcendental logic, or pure logic, treats of the form of thought only, and abstracts form from the contents of thought altogether. Therefore, pure reason useful as it is for its purpose if employed for criticism and as a regulator of correct thinking, is useless for the purpose of ontology.

In opposition to the futile method of the ontologist, those thinkers who instinctively felt that logic could not answer the ultimate question about the existence of the world—such men as understood the depth of the problem, yet were unable to solve it—denounced reason as altogether insufficient and even erroneous. They spoke of a superior and divine reason in opposition to our weak human reason, as if reasons of different kind could exist.

The idea of hyper-mechanical motions is shaped after the pattern of such a supernatural reason, which is conceived to stand in

contradiction to human reason. Hyper-mechanical is just as self-contradictory as hyper-logical, hyper-arithmetic, or hyper-mathematical. All attempts to construe Riemann's ingenious idea of a curved space into a hyper-mathematical space-conception are vagaries and will be recognized as such by every one who is familiar with Grassmann's *Ausdehnungslehre*, which will receive a closer attention in a later number of THE OPEN COURT.

Monism, as editorially represented in THE OPEN COURT, keeps equally aloof from ontology, which is an overvaluation of reason, and from mysticism, which is an undervaluation of reason. The universe, in its existence as a living whole, is accepted as a fact, but the order and form of the universe can be comprehended and investigated.

By the form, for instance, of planets, we understand their shape as globes (or rather as spheroids); by the form of their motions we understand their paths, which are conic sections. We cannot comprehend why planets materially exist; their material existence, that their mass exists at all, is a fact; but their existence as planets, why they exist in the shape of spheroids, and why they travel in paths of conic sections can very well be comprehended under the supposition that their masses are in motion and possess a certain quality, which we call gravity.

Intelligibility involves regularity of form, or order. Chaos is unintelligible, but order can be comprehended. Let us bear this truth in mind when we attempt to solve the mystery of life. Science has solved many problems of psychology, physiology, and biology, but the solutions have always been such as account for certain forms of life. The evolution theory, so far as it goes, explains how the human form has developed from the most simple forms of protoplasm. Every living particle of man's body is protoplasm of a certain form; and science, when showing how this form must have developed, has solved the problem of the Descent of Man.

Now, it is contended that while the problem of the Descent of Man may have been solved, the problem of Life remains unsolved, because the origin of protoplasm is not yet demonstrated.

This is true; but it must be remarked that the problem to be solved is rather the origin of the form of protoplasm than the origin of life. The spontaneity of living substance is found in the kingdom of inorganic nature also. A base and an acid rush toward each other and combine in the form of a salt. As soon as we know what the molecular forms of bases and acids look like, we may be able to comprehend why they combine into substances of a new form, which have the properties of salts. If the science of molecular chemistry (which does not yet exist) should succeed in a discovery of this kind, the problem of the formation of salt crystals would be solved and the affinity of bases and acids would have found its explanation. But the problem of why the atoms of a certain shape fit to atoms of another shape, is different from the other problem: Why do the atoms rush towards each other at all?

Mr. Salter asks: "How can a body move itself?" The fact is, the body moves; and our problem is: Does the body move because it possesses a certain quality which is intrinsic in the body, or does it move because it is pushed by a pressure from without? The problem is by no means solved, but there is no reason why in time it should not be solvable. Our opinion is, that the atoms, as well as the masses of matter, possess spontaneity or the property of self-motion, which is akin to what in the higher forms of natural phenomena in the organic kingdom is called life. Self-motion is, therefore, life in a broader sense, and the phenomena which are exhibited in protoplasm must ultimately find their explanation from its form as a special and complicated instance of the simpler self-motions of inorganic substances.

Our chief objection to the mechanical explanation of life by *vis a tergo* is, that it leaves the problem for whose solution it is invented, untouched. If all the atoms of our body acted only be-

\* E. Mach, "Die Mechanik in ihrer Entwicklung," p. 457: "Rein mechanische Vorgänge gibt es nicht." "Rein mechanische Vorgänge sind also Abstraktionen, die absichtlich oder notgedrungen zum Zweck der leichteren Uebersicht vorgenommen werden."



cause they are set in motion from the outside by the pressure of ether, feeling as well as consciousness would remain unexplained. In that case the ether would possess spontaneity, and not the atoms. If it were so, the ether around us and within us might feel and become conscious, but not the atoms that build up our body, and the problem of the origin of psychical life would be obscured than ever. The origin of life would not be explained. On the contrary, by the assumption of dead and inert matter, life would become an impossibility.

The existence of life being a fact, and all supernatural or dualistic theories being inadmissible, we see no simpler solution of the problem than that of considering life in its broadest sense as an immanent property of matter. As such it remains what it ever has been, a fact ascertainable by experience. All explanations of the higher life in plants and animals will have to be confined to demonstrating how the higher forms of life originate from uniform life by showing the continuity of all life and the development from its simplest forms of spontaneous motion to its highest form known to us in the human will, which under circumstances will rise to heroic heights.

Monism, by accepting the idea that nature is alive, does not return to the old mythological standpoint. The characteristic feature of mythology is the fact that things are considered as animated *like ourselves*. The savage has sufficient power of generalization, as Mr. Spencer would express it, to see the similarity between ourselves and things; but he lacks the power of discrimination, which is indispensable to scientific investigation, to appreciate the difference between the babbling brook and a prattling girl; he hears in the murmur of the water the voice of a nymph. Monism, by explaining the truth that lies at the bottom of mythology, will afford the only means of liberating our minds from its errors, for mythological errors, it is true, are lurking everywhere in our conceptions and in our words. It would be impossible to clear language of mythological comparisons and similes without sweeping it entirely out of existence. If we tried to use language that is free from mythology, we would be obliged to invent a new Volapük—a language that has no historical development, that is not infected with the errors of the past, but will be understood nowhere.

Is it necessary to create such a language, a philosophical Volapük? Probably not. It is sufficient to show the traces of mythology and to explain their origin. We still speak of sunrise and yet we know it is the earth by its rotation that causes the appearance of the sun on special parts of its surface. We know it, and every child now knows it, without taking offense at the inadequacy of the expression.

We make bold to say there is no word in any language which is not from some point of view an inadequate, or a mythological, or a dualistic expression. If we employ the term life in its broadest sense as spontaneity or self-motion, we are conscious of using a mythological expression. The same is true of such words as affinity in Chemistry, attraction and repulsion in Physics, of the sexes in Botany and in innumerable other cases. To speak of failures in the empire of nature where there is neither will nor consciousness is a mythological expression also which is quite allowable if it cannot be misunderstood.

Anthropomorphism is not only allowable and justifiable, it is even indispensable to a proper comprehension of phenomena external to us. Man is a part of nature and man's whole existence must be understood as a special form and combination of certain natural phenomena. A direct knowledge of nature is given to us in our consciousness only; and this consciousness must be used in order to interpret the other phenomena of nature. Accordingly, the natural development of human comprehension will lead us through anthropomorphism, of which science will free us step by step, from which, however, we never shall nor can be severed entirely; for there is a truth in anthropomorphism which is fully explained by

the doctrine of monism that Nature is one great and living whole of which man is a part—such a part as contains in its form the quintessence of nature's life.

P. C.

## COMMENTS ON THE EDITOR'S VIEW OF CAUSALITY.

BY DR. EDWARD BROOKS, OF PHILADELPHIA.

WITH EDITORIAL REMARKS.

I have read with great interest the editor's clear and able discussion of the problem of causality, and while agreeing with many of his statements, there are a few points to which my mind does not at present assent. I take the liberty of calling attention to a few of his statements, with the desire of a fuller elucidation of the subject.

1. In No. 55 you say "effect is a new arrangement of things," but "never an object, or a thing;" that "the statue, as a thing, is not the effect;" that "the effect is the special form of the wood, clay, stone, or bronze." Now, it seems to me that by *statue* we always mean the "special form" of the material, and not the material itself. I ask, who carved this marble statue? or, who cast this bronze statue? and I mean—not who made the marble, or the bronze—but who shaped them into the form which we call a statue. No one would for a moment suppose I meant by my inquiry who made the material out of which the statue was formed. The statue, it thus seems to me, is properly and necessarily to be regarded as the effect; and when I inquire who made the statue, I am inquiring for a cause of which the statue is the effect.

[The statue, as commonly understood, comprises both the form and the material of which it is made. In the main point we agree fully with Dr. Brooks: The statue, so far as it is the effect of the sculptor's labor, is the *form* of the statue. In this instance the distinction is obvious enough; but it has to be pointed out in simple instances, in order to show that the same also holds good in other more complicated instances.—Ed.]

2. Again you say: "The sculptor is not the cause;" but "the sculptor's labor is the cause." Well, what or who is the cause of the sculptor's labor? If you pass backward along the chain of causation towards the origin, do you not find the sculptor a link in the chain; and, as he is the source of the labor, is he not as much of a cause as the labor of the sculptor? If there had been no sculptor there could have been no "sculptor's labor," and thus no statue as an effect. It seems to be, therefore, that it is entirely proper to speak of the sculptor as the cause of the statue. He produces the statue; it is the product of his brain and hands; and he is, therefore, the source or cause of it.

In your example of a loaded gun and the deer, you say "the pull on the trigger is the cause." But the pull on the trigger is an effect caused by a volition of the mind. This volition of the mind is an effect produced by the mind; so that the most prominent link in the chain of causes is still found to be the mind, or in other words, the person. This is not only philosophy, but the basis of law, for it is the person and not the "pulling of the trigger" that would be held responsible for the violation of law if it were unlawful to kill a deer.

It seems to me that any course of reasoning that tends to disprove the above conclusion would tend to prove that the "pulling of the trigger" was not the cause of the killing of the deer. Thus the pulling of the trigger was followed by the fall of the hammer, this by the explosion of the cap, this by a spark that ignited the powder, this by the explosion of the powder, and this by the motion of the bullet; now here are several links in the chain, and we inquire which of these is the cause of the killing of the deer—the motion of the bullet, or the explosion of the powder, or the spark from the cap, or the explosion of the cap, or the blow of the hammer, or the pulling of the trigger? Is it not more reasonable to say that the man who pulled the trigger shot the deer and was the cause of the killing of the deer?



[Here it appears how necessary a disjunction between form and substance is. Causation being the progress of motion, a cause must always be a motion or a change of place, an alteration of some kind in a configuration of certain circumstances; but never a thing or a person, never a substantial entity. Certainly, if there had been no trigger there could not have been a pull on the trigger. Nevertheless, the trigger is not the cause, but the pull on the trigger. The cause of volition of the mind is not the mind itself; but, as a rule, a desire. The causes that move the mind to volition are properly called motives. The sculptor is as little the cause of his work as the trigger can be called the cause of the pull at the trigger. Dr. Brooks maintains that the sculptor forms a link in the chain of causation towards the origin. Let us see. The cause of the manual labor is the mental labor of the sculptor's imagination, including the work of modeling. And the cause of the sculptor's mental activity (which obviously consists in motions also) is perhaps an order from a patron or a demand of some kind among the public at large. And this demand, which is again a motion of a peculiar kind, is perhaps the effect of a certain idea which has become popular for some reason or other. Such ideas as excite popular interest are called "movements." Thus we can trace causation back *ad infinitum*. How far it should be traced depends upon the circumstances of each case; but always we shall find the causes to be motions of some kind. Without motion no change, and without change no causation.]

[Popular usage calls natural laws also the causes of phenomena for which they serve as explanations. We object to this usage because causes, as defined in No. 55, and natural laws are radically different things. If both are called by one and the same term, we shall understand neither the one nor the other, and causality will remain a profound mystery.]

[The person committing a crime is not a cause. The cause of a criminal's act is his motive. But, of course, the criminal is answerable for his deed. The motive is nothing but a transient phenomenon of nature (a psychological phenomenon), and so are all causes; all causes are transient natural phenomena involving some change of place.]

[In every chain of causation, we can trace a progress of motion. Every prior event is the cause of the subsequent events. Which two events should be selected and named "Cause and Effect" depends upon the proper tact of the observer. That which should be designated as cause and effect must be equal in importance, or must stand in a certain relation; e. g., 'intention' and 'end attained.' It depends, of course, on the purpose for which the statement, or an enquiry, is made.]

[We take the liberty to omit Nos. 3 and 4 of Dr. Brooks's comments, since they have reference to the expression "being suspended" in No. 58, which, in the mean time, had been corrected in No. 59, on page 1256.—Ep.]

5. "Gravity," you say, "is an abstract conception."—Is it not more than this? Is it not an existence independent of the mind concerning it? We have a conception of force; are there not forces which exist independent of our conception of them? Would not some force, which we call gravity, exist even if there were no mind to conceive it?

[Gravity is an abstract conception, and as such it has been abstracted from reality. Gravity represents a quality of real things, independent of our conception, as has been stated in No. 58, pp. 1240-1241. Gravity, though it is in so far real, is not a cause, not a transient phenomenon, but an always existing quality of nature; while gravitation is a natural law formulated to account for the stone's fall and all other phenomena of gravity.—Ep.]

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXIV—Continued.

The guests had left, and Ilse was sitting alone in her room. What had she done? Become the confidant of a man implicated in a bloody deed, the secret adviser of a lawless action. She, a woman, was the confederate of a strange man; she, the helpmate of one who should be the guardian of the laws, had become the abettor of a crime. What dark spirit had infatuated her when she confidentially held counsel with the stranger in whispers on a subject which she could not venture to confess to her husband? No!—he who had drawn her into this was not a stranger. She had from her childhood heard of him with deep interest; he was the future ruler of her country, and would be there master of life and death. From the time she first knew him, so touching in his joyless youth and in the weak helplessness of his position, she had been tenderly solicitous about him; and from that day she had always found in him an amiable and pure mind. She was now trembling with anguish for him. She had driven him to his fate; she bore the guilt of an action that was considered unseemly for one in his position. If from her advice evil befell him—if the opponent of the poor, weak youth should kill him,—how could she bear it on her conscience?

She sprang up, and wrung her hands. Her husband called her, and she shuddered, for she felt herself guilty in his sight. Again she asked herself: "What bad spirit has distracted me? Am I no longer what I was? Ah me! I have not acted as becomes a Christian woman, nor as a careful wife who opens the shrine of her soul to one alone. Yet," she exclaimed, raising her head, proudly, "if he were again to stand before me, and again ask whether he should act as a man or as a coward, I would again and again say the same thing. May God forgive me!"

When Krüger entered the Prince's bedroom to undress him, the latter laconically charged him with a commission that greatly astonished the lackey. But as he saw himself thereby confirmed in his confidential position, he promised obedience and silence. He extinguished the lamp, and went to his post. An hour after, he introduced the student, who had been brought by Gabriel through a back-door, into the bedroom of the Prince. There a conversation took place in a low tone, the consequence of which was that the student hastened from the house in great excitement, and commissioned Gabriel, who was waiting, to order a cab to be ready at an early hour in the morning near the corner of the next street.

A serious company, the flower of the different corps and associations, tried fellows of daring aspect,

\* Translation copyrighted.



were assembled at early dawn in the hall of a tavern some distance from the town—an impressive sight for every student heart. On this day most of the sanguinary agreements of the memorable evening were to be settled in their proper order. The first matter in hand concerned the academic honor of the Hereditary Prince. The combatants were drawn up, dressed in their fencing attire; each one stood, with his seconds and umpires, in a corner of the room; the physician—it was the old Teuton of the fiddle—had prepared his apparatus in a corner, and looked with grim satisfaction on his impending work, which promised him new and instructive cases. But the Arminians were unappeasable: once more their seconds addressed themselves to the referees, and complained that the Prince was not there, at least, to acknowledge his representative by his presence. They therefore demanded that the impending combat should not be reckoned for him, but accounted as a personal struggle between the two students, who had frequently come athwart each other in various delicate relations. As the Markomanns had not clear consciences, having equivocally contrived to evade the question, they now proposed that the Prince should subsequently meet the seconds at some place to be agreed upon, where the customary reconciliation should take place.

This was discussed with much bitterness, but briefly, as the hour demanded. Suddenly the freshman, a young Arminian, who kept watch outside, knocked twice at the door. All stood motionless. But the seconds gathered the swords together and threw them into a dark closet, while our student, who, as backer for his comrade, was binding silk about wrist and arm, sprang quickly to the door and opened it. A slight figure in a cloak and felt hat entered. It was the Hereditary Prince. He removed his hat: his face looked paler than usual, but he spoke in a composed manner:

"I have come to you in secret; I beg that the gentlemen present will permit me to take upon myself the responsibility of giving satisfaction and will show me due consideration if I prove unpractised in any of the customary formalities; it is the first time that I try my skill."

There was a silence so profound that one could hear the slightest stir. All present felt that this was a manly act. But Beppo, the Markomann, stood confounded, and began:

"Your Highness's presence now removes the only obstacle to our proceeding with the duel. I insist that the course determined upon be not reversed," and in a lower voice he added, "I beseech your Highness, not to do what is so plainly unnecessary; it will cast upon us all a responsibility that we dare not assume."

The Prince answered firmly: "You have fulfilled

your promise; I am as grateful for the will as for the deed. But I am resolute." He took off his coat, and said: "Put the bandages on."

The second of the Arminian turned towards the umpire, saying, "I beg to inform our opponent that not a moment is to be lost; we are not here to exchange civilities; if the Prince wishes to have satisfaction himself, we are ready."

The Markomanns prepared the Prince, and one must acknowledge that the brave fellows did it with as anxious solicitude as if they had in fact been warriors of the race whose name they bore, and were preparing their young king's son for deadly single combat.

The Prince stepped up to the mark; the weapon trembled in the hand of his second, a scarred veteran, as he took his position beside him. "Ready!"—"Go!" The blades whistled in the air. The Prince did not behave badly; a long habit of cautious self-command stood him in good stead; he avoided exposing himself dangerously; and his second drew upon himself a sharp warning from the umpire for inconsiderately exposing his own person within reach of the enemy's blade. The Arminian was far superior in strength and skill, but he afterwards acknowledged to his intimate friends that it had quite disconcerted him to see the princely scion within reach of his broadsword. After the fourth pass, blood streamed from Ulf's broad cheek on to his shirt. His second demanded the continuation of the fight, but the umpire declared the quarrel ended. As the Prince stood still in his place the sword fell from his hand, and there was a slight tremulous motion in his fingers; but he smiled, and there was a pleased expression on his face. In one short quarter of an hour a boy had attained the self-reliance of a man. Before the Prince turned to his antagonist he embraced the Markomann, and said: "Now I can thank you from my heart." The umpire led him to his opponent, who was standing ill-humoredly before the Doctor, but yet could not suppress a smile that gave him some pain, and both shook hands. Then the Arminians approached to greet the Prince, while the umpire called out "Second event."

But the Prince, who had resumed his mantle, went to the director of the duels, and began: "I cannot go away without making a great request. I was, unfortunately, the cause of the painful occurrence that has occasioned this discord among the students. I well know that I have no right here to express any wish, but it would be a pleasant recollection forever for me if I could bring about peace and reconciliation."

At this moment the Prince might have made any demand upon his Markomanns, and even the Arminians were impressed by the extraordinary event. A murmur of approbation passed through the room, and



the umpire exclaimed in a loud voice: "The Prince has spoken well." The gloomy looks of some individuals were disregarded; the seconds and seniors held a consultation upon the spot, and the result was that the impending challenges were amicably settled, and a general reconciliation brought about.

The Prince, surrounded by the Markomanns, left the house and jumped into the carriage awaiting him. Krüger opened the bed-room door to him.

The Chamberlain had been much surprised this morning at the long repose of his young master; but when he came to breakfast he found his Prince sitting comfortably at the table.

After Krüger had gone away, the Prince began: "The duel has been settled, Weidegg. I fought it out myself." The Chamberlain stood up, horrified. "I tell you it because it could not long be kept a secret. I hope that the quarrel among the students will be settled by it. Do not say anything against it, nor be annoyed at the matter. I have done what I considered to be right, or, at all events, what was least wrong, and am happier than I have been for a long time."

The Markomanns had begged of all present to give their word that the events of the morning should not be spoken of, and one may assume that every one kept his promise. Nevertheless, the news flew quick as lightning through the University and city, that the Prince himself had composed the quarrel by his valiant and manly conduct. The Chamberlain perceived from the indications of pleasure from the Markomanns, and the friendly greetings which his young master received in the street, and still more from the altered demeanor of the Prince himself, that the secret duel had had a good result, and this reconciled him a little to the vexatious occurrence.

When the Prince some time after visited the Rector's house, he was led into the latter's study, and Werner greeted him, smiling. "I was obliged to inform the government of what had lately taken place, and to add, according to the unanimous sentiment of the students summoned to appear before me, that your Highness had, by your interposition, contributed essentially to the restoration of peace. It has become my duty to express to you the warm acknowledgment of the academical authorities. I venture to give expression to my own wish, that all that your Highness has gone through on this occasion may ever leave an agreeable and also profitable recollection."

As the Prince bowed to Ilse, he said, in a low voice: "All has gone off well, I thank you." Ilse looked proudly at her young Prince. Yet she had not recovered from the fearful anxiety of the previous day, and she was more reserved with him than usual.

## CHAPTER XXI.

## CHAOS.

Spring smiled cheerfully on the country, the flowering shrubs and the beds in the garden combined their colors brilliantly; this year, starlings actually sang in Mr. Hahn's cages, and ranunculi and other wild flowers in the meadow in front of Mr. Hummel's garden rejoiced in the moist warmth. It was a pleasant time for our academical citizens; the quarrels of the winter were settled, the beadles put on their night-caps at ten o'clock, and the lectures of the Professors went on smoothly and pleasantly.

The Rector also enjoyed the repose, and he needed it, for Ilse saw with anxiety that his cheeks were thinner, and that in the evening a lassitude came over him that formerly he had not known.

"He ought to rest from his work a few months," advised the physician; that will lend him new life and strength for years to come; every man of studious habits requires such relaxation two or three times during his life; traveling would be the best thing."

Felix laughed, but his wife kept this counsel faithfully in mind, and endeavored, meanwhile, as often as possible, to draw her husband from his books into the air. She put her arm within his and took him into the wood and green meadows; she pointed out to him the butterflies that fluttered over the wild flowers, and the flights of birds that enjoyed themselves in the warm sun-light.

"Now is the time for that restlessness of which you once told me. Have you not noticed it?"

"Yes," said the Professor, "and if you will go with me, we will, at least in fancy, travel together into foreign parts."

"Will you take me with you?" exclaimed Ilse, delighted. "I am like the woodchuck: I only know the hole from which my master brought me, and the cover of the cage in which I am fed. If I could have my wish, I should like to see snow-capped peaks rising high above the clouds, and abysses of immeasurable depths. But from the mountains I would descend to olive-trees and oranges. For years I have heard of the men who have lived there, and have seen how your heart leaps for joy whenever you speak of the blue ocean and of the grandeur of the old cities. I would gladly see all this, and hear you talk and feel the pleasure which you would have in revisiting the scenes so dear to you."

"Very well," said the Professor; "to the Alps and then to Naples; but in passing I must work a few weeks at Florence upon Tacitus."

"Ah!" thought Ilse, "there is the manuscript again."

They were sitting under a large oak, one of the giants of the Middle Ages, that towered above the new



generation of trees in the forest, as the cupola of St. Peter's does above the towers and roofs of the Holy City.

When they came out from the copse into the open space, they saw, amidst the flowers in the meadow, the livery of a lackey, and then perceived the Prince and his attendant, together with a proprietor from a neighboring village. The gentleman approached and greeted them.

"We have a design upon some hours of your leisure," called out the Chamberlain to the Professor, and the Prince began:

"I wish to invite some of the ladies and gentlemen of the University to an entertainment in the open air, as I cannot have the pleasure of receiving them at a house of my own. It will be a small party, and as rural as possible; we thought of this spot, as your wife had often extolled it. I would be grateful for your assistance and advice as to the arrangements."

"If your Highness wishes to please the ladies, you should also invite the children. If it is at the same time a children's party, your Highness may be assured that it will leave a pleasant impression."

This was agreed to. Dainty invitations were sent to the Rector and Deans, and the Professors with whom the Prince was personally acquainted, and their families, to an entertainment in the open air. The idea was approved by great and small, and gave rise to pleasant anticipations among the acquaintances of the Rector's wife.

Laura had received an invitation, and her pleasure was great. But when in the evening it appeared that the Doctor was not invited, she was quite put out.

"I do not mean to be his advocate," said she, to Ilse, "but he is precisely in my position; and if I am asked on your account, he ought to be for the sake of your husband. Their having neglected to do this is want of tact, or something worse; and, as he is not asked, I am determined not to go; for, let Fritz Hahn be what he will, he has not deserved a slight from these people."

In vain did Ilse try to explain to her that the Doctor had not visited the Prince, from whom the invitations came. Laura remained obstinate, and replied:

"You are an eloquent defender of your Prince, and more acquainted with the customs of great people than I had supposed. But when the picnic-day comes I shall feign illness, you may rely on that. If my friend over the way is not invited I shall not go. But do not tell the Doctor, lest little Fritz should fancy I do it for love of him; it is not friendship for him, but displeasure at the Court people."

One Sunday there drew up in the neighborhood of the great oak, first a large van with Krüger and a cook, then the Prince's equipages bringing the ladies

and gentlemen, and an omnibus adorned with garlands and wreaths brought the children of the different families. A tent had been set up in the meadow, and a little apart, concealed in the copse, a wooden hut was erected as a temporary kitchen; a band of music was stationed in the wood and welcomed the parties as they arrived. The Prince and his Chamberlain received their guests near the wood, and conducted them to the centre of the picnic-grounds, where a prodigious work of the highest confectionery art formed the lighthouse, in the neighborhood of which they all dropped anchor. Soon there was a clatter of cups, the unavoidable preparation for thorough German festivity. In the beginning the company were solemn; there was something unusual in the arrangement of the fête which occasioned reflection. But when Raschke, raising the flaps of his coat, seated himself on the grass, and the other gentlemen followed his example and lit the cigars which were presented to them, the meadow assumed a bucolic appearance. Even the Rector sat on the turf with his legs crossed in Turkish fashion; near him the Consistorial Councillor on a chair; and somewhat further off, on the trunk of a shattered tree, the still hostile Struvelius, with his bristling hair and silent manner, like the sorrowful spirit of an old willow. Apart from them, but enthroned on a high ant-hill, over which he had spread his pocket-handkerchief, sat Master Knips; he held his slouch hat respectfully under his arm, and rose whenever the Prince approached. Meanwhile the latter exerted himself to entertain the ladies, with whom he had been a favorite since the occurrence of last winter, and to-day he completely gained the hearts of both mothers and daughters. Ilse and he worked together with a mutual understanding; Ilse, elevated by the thought that people were pleased with her Prince, and he happy at heart that he had some work in common with the Rector's wife.

Never yet had he felt on such an intimate footing with her as he did to-day. He looked only at her, he thought only of her. Amid the buzz of conversation, amid the sound of the music, he listened to every word that fell from her lips. Whenever he approached her he felt a glow of transport. In plucking a leaf from a tree, the lace of her sleeve passed over his face, and the touch of the delicate texture brought the color into his cheeks. Her hand rested a moment on his as she offered him a ladybird, and the slight pressure made his heart beat fast.

*(To be continued.)*

Still in the paths of honor persevere  
And not from past nor present ills despair;  
For blessings ever wait on virtuous deeds,  
And, though a late, a sure reward succeeds.

CONGREVE—*Mourning Bride.*



## BOOK REVIEWS.

LOUISA MAY ALCOTT, "THE CHILDREN'S FRIEND." By Ednah D. Cheney. Illustrated by Lisbeth B. Comins. Boston: L. Frang & Co.

The recent death of the author of "Little Women" has been a great loss to juvenile literature, and a short biography of Miss Alcott's life, with extracts from her works illustrating her life, will be a welcome gift to our children and perhaps not less so to the many men and women whose memories dwell with love in Miss Alcott's beautiful stories. Mrs. Ednah D. Cheney, a life-long and intimate friend of the Alcott family, has prepared the sketch, in which she gives us the key to the wonderful success of Miss Alcott. The book is embellished with a handsome frontispiece and many pen illustrations by Miss L. B. Comins, representing views of two of Miss Alcott's homes and the family burial-spot in Concord, Mass. In addition to the simple but attractive story of her life we find an appendix of several poems, partly by, partly to Miss Alcott. The artistic form of appearance, worthy of the renowned house that has published the volume, is the more remarkable as the price is only one dollar.

O. C.

The point of special interest in *The Art Amateur* for October will be to many the notices of Prof. Morse's collection of Oriental Ceramics, which, we are glad to hear, has been purchased by a wealthy Boston lady, through whose public spirit and generosity we hope it will ultimately find its place where it belongs, in the Boston Art Museum. Reference is also made to his article in the September number of *Harper's Magazine*, which must be a very interesting one. The same subject is treated more fully in the talk with Tadamas Hayashi on Oriental Ceramics.

The various departments of the magazine are filled, as usual, with much that is entertaining and instructive, but we are sorry to find the subject of Biography of Contemporaneous Painters rather neglected of late. French writers are publishing admirable sketches of those artists whose names are becoming familiar to us by their work, and the *Amateur* could gratify a reasonable curiosity by reproducing or condensing them for American readers.

If the *Amateur* professes to give information in regard to art instruction in answer to serious queries, we think it should not dismiss the subject by saying the "Boston Art School is not known to us," and recommending the School of Fine Arts at the Conservatory, while making no mention of the "School of Art" at the Museum of Fine Arts, which has been pronounced one of the very best in the country, or of the Lowell School of Design, to say nothing of other schools which would seem well adapted to the questioner's purpose.

Would not a list of the well-established schools of art and design in the different cities, with some statement of the peculiar merits of each, be a very valuable source of information to those wishing to learn to draw thoroughly and well.

The Crayon Portrait Study, by L. Horowitz, is very good. Edward Moran's Marine Painting is very delicate in color and is free from the usual faults of printed landscapes. It has much poetic atmospheric effect. It well illustrates his long and valuable article on Marine Painting. The Night Hawk illustration is very bold and free, and the various studies in landscape are interesting and instructive. There are many good designs, but we do not like to see the head of the venerable "father of his country" hammered out on a plaque. Such misappropriations always remind us of the witty clergyman who refused to buy a moral pocket-handkerchief, saying: "The Lord's prayer isn't a thing to be sneezed at."

E. D. C.

## NOTES.

In answer to a question of X. F. P. O., of Columbia, Mo., we will state that the subject of Monism is treated in No. 8, "Monism,

Dualism and Agnosticism"; No. 24, "Monism and Religion"; No. 25, "What the Monistic Religion is to Me"; No. 27, "Goethe's Monism"; No. 30, "Superstition in Religion and Science"; No. 33, "Monism and Philology"; No. 35, "Idealism, Realism and Monism"; No. 40, "The Nature of Mind"; No. 47, "The Oneness of Man and Nature"; Nos. 53, 54 and 55, "Monism and Religion. A Rejoinder, With Editorial Remarks"; No. 56, "Religion and Science. A Résumé."

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In Number 23 Professor E. D. Cope treats of "Evolution and Idealism," and finds in the evidence of evolution the refutation of the doctrine of Idealism. He concedes that much of what we consider the objective world is unreal and has no existence, except, as we perceive it, like the snakes, for instance, to the victim of *delirium tremens*; and he agrees that "the properties of matter" owe much of their character, and even their existence, to our senses, which give matter all its qualities, or, at least, modify and change them according to the number of our senses and their ability to perceive. Yet, for all that, he says: "If a given supposed object be purely a mental state on the part of the subject, a rational cause for the production of that state is wanting."

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idealist to deny the existence of matter. The materialist beholding the imperfection of the senses may pronounce them to be, one by one, incompetent witnesses, and declare them to be illusions. But the fact is, both exist, object and subject, matter and mind."

MONCURE D. CONWAY, on Agnosticism, in No. 47.

Mr. Moncure D. Conway, in reference to the philosophical exposure of Agnosticism in the editorial article of Nos. 43 and 44 of *THE OPEN COURT*, declares that the Unknowable cannot in the least concern the religious nature. Only weariness of wing can have brought free thinkers to seek rest on this raft. Religion does not follow abstract and vague gods, it follows Jesus, Buddha, Mary, who may be known and loved. On the truth and moral value of these great figures, man can base his life. Mr. Conway concludes with the remark that the ethical side of monism has not as yet been made clear. Nature seems predatory and cruelly impartial between good and evil. Adherents of error survive more comfortably and increase more extensively than the disciples of truth. May it not be more truly said that there is a moral law in man to which nature must conform in order to be elevated and transfigured to a nobler existence? Mr. Conway's critical remark if it were unanswerable from the standpoint of Monism would drive religion and philosophy back into the dualism and supernaturalism of former times. And truly the supernatural, if it is justifiable at all, must be recognized in the moral nature of man, unless man is proven to be a part of nature. The editor's answer to Mr. Conway's criticism, in the same number, expatiates on the Oneness of Man and Nature, thus showing that humanity, culture and civilization are but a higher stage of the natural, and that morality does not stand in contradiction to, but is an observing of and a conforming to the cosmoical order of the All.

ERNST MACH.

Ernst Mach (Professor of Mechanics at the University of Prague, author of several works explanatory of the history and philosophy of mechanics, and the first authority in his branch) explains in his essay *Transformation and Adaptation in Scientific Thought*, (in Nos. 46 and 48), one of the most characteristic ideas of modern science—an idea that lies, so to speak, in the atmosphere. "Knowledge," he says, "is an expression of organic nature." The law of evolution, which is that of transformation and adaptation, applies to thoughts just as well as to individuals or any living organisms. A conflict between our customary train of thought and new events produces what is called the problem. By a subsequent adaptation of our thought to the enlarged field of observation the problem disappears and through this extension of our sphere of experience the growth of thought is possible. Thus the happiest ideas do not fall from heaven, they spring rather from notions already existing. From this standpoint the narrow conception of egotistic views disappears. "The person" is comparable to an indifferent and symbolical thread on which are strung the real pearls of life—the ideas that make up the changing content of consciousness. Humanity in its entirety is like a polyp plant; the material and organic bonds of union have been severed, but by this freedom of movement, the psychical connection of the whole has been attained in a much higher degree.

E. P. POWELL.

The American scholar, E. P. Powell, gives his views on "Language" in Nos. 24 and 26. He maintains that language, as a means of communication, is possessed by all the animal creation, even down to the lowest in the scale of being; that all communicate with one another; that all of them have a language to express their wants and especially to express hunger. This lies at the root of the principle of evolution, because "organic development is necessitated in the direction of organic power to express—to speak."<sup>1</sup>



# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 61. (Vol. II.—35.)

CHICAGO, OCTOBER 25, 1888.

{ Two Dollars per Year.  
{ Single Copies, 10 cts.

PROFESSOR WILLIAM D. GUNNING.

BY FREDERIC MAY HOLLAND.

AN ADDRESS WRITTEN FOR THE MEMORIAL SERVICE TO PROFESSOR WILLIAM D. GUNNING, HELD AT CAMBRIDGE, MASS., AUGUST 5TH, 1888.

## INTRODUCTORY HYMN.

O Earth, thy past is crowned and consecrated  
With its reformers, speaking yet, though dead:  
Who unto strife and toil and tears were fated,  
Who unto fiery martyrdoms were led.

O Earth, the present too is crowned with splendor  
By its reformers battling in the strife;  
Friends of humanity, stern, strong, and tender,  
Making the world more hopeful with their life.

O Earth, thy future shall be great and glorious  
With its reformers toiling in the van;  
Till truth and love shall reign o'er all victorious,  
And earth be given to freedom and to man.

That majestic Sphinx,\* the guardian angel of these peaceful dwellings, asks a question far more difficult than the old Theban riddle. Why, she says, is life so incomplete? Why is this silent city peopled with children who had scarcely given any sign of what they were capable of becoming, with young lovers who saw nothing but roses around them as they closed their eyes, and, sadder still, with men and women who were already in the full tide of usefulness and honor? Our friend, in whose memory we meet, was an unconscious prophet of his own untimely end, when he said, in a brilliant article in *The Index*, "*Finis* is a word which nature never spoke." "This creation is incomplete. It is no miracle, no theophany. It is the passing phase of a scheme which is developing from a background of eternity." "Man is still incomplete," he adds, "a foundation whose completion transcends the powers of nature."

What I honor most about our friend's life, is that it was one which could not be completed. He left his work unfinished in his sixtieth year. He could not have finished it if he had reached four-score years, or even a century. And this was not because he did not labor zealously and patiently. Look at the records of his boyhood. See him, despite his fondness for society, preferring books to play or supper. See him delighting in nothing so much as in roaming the woods and fields in search of rare plants. See him, a little

later, always keeping an open book beside him on his tailor's bench. Such tastes did not suffer him to sit there long. In 1854, we find him a graduate, at the unusually mature age of twenty-six, from Oberlin, then famous not only for sympathy with the slave, but for hospitality to women. He had already done some teaching and made a study of law; and that fall he took part, as an opponent of slavery, in the campaign which triumphed in the election of his candidate, Governor Chase, of Ohio, afterwards Secretary of the Treasury. Mr. Gunning soon found that his true field was not law or politics, but science. In 1859, he was busy lecturing and investigating in the service of the State Board of Geology of Illinois. He had studied comparative anatomy in New York City, before he came, in 1863, to Cambridge to hear Agassiz, who spoke highly of his powers. Four years later he was working in London, and talking with Huxley and Herbert Spencer. He was an early and open advocate of evolution; and this highest result of thought formed a frequent theme of the brilliant lectures which he delivered during the last twenty years all over the country, from Massachusetts to California. High praises are given by Unitarian and Orthodox clergymen,—I mention this because it is even more to their credit than his,—not only to his lectures but to the book which he published in 1877, under the title of "*Life History of our Planet*." The *Popular Science Monthly* calls this "a successful attempt to popularize a great branch of science without sacrificing or cheapening it," and adds that "the author has invested the great historical problem of the earth's past life with unusual interest and attractiveness." This volume is soon to be reprinted and accompanied by another, made up of contributions to the periodical just mentioned, to *The Index* and to *THE OPEN COURT*. Among the characteristic titles are these: "*The History of Niagara Falls*," "*Have Plants a Pedigree?*" "*The Sisterhood of Worlds*," "*The Sun in Religion and Science*," "*The Moon in Life and Death*," "*The Evolution of God*," "*Old Morals and New Ethics*," "*Prophet and Sibyl*."

But it would be doing more justice to Prof. Gunning to quote him than to talk about him. In various sermons and lectures he says: "One of our poets, in a scene in which angels meet from different spheres,

\*A huge granite monument facing eastward, near the entrance to the chapel in Mt. Auburn, commemorating the preservation of the Union, and the Emancipation of the slave, executed by the sculptor Martin Milmore. Designed and given by Dr. Jacob Bigelow.



describes an angel standing aside from his companions with folded wings, bowed head, and tearful eyes. And the angels said: 'Who is that?' And another angel replied: 'It is the angel of the earth. She is always weeping.' "O my earthly friend and brother! The angel of the earth should be known by all the celestials as the 'Glad Angel.' If she is tristful, her tears flow over the \$300,000,000 in the coffers of one man more than they flow over the empty coffers of another. Her tears will never dry till such crime against humanity, as \$300,000,000 to one man is impossible. A smile should chase back her tears every day a man invents a machine to abridge the labor of men. Let the higher enjoyments of one bring the largest meed of joy to the many. Wipe the grime from the brow of the toiler, weary and heavy-laden, and make the angel of earth the glad angel." "So will the dream of to-day be the life of some glad tomorrow." "O Prophet! O Sibyl! Through the mists of earth thou didst see the city of God. Echoes from another shore of being fell upon thine ears. Flashes from hills of light beyond the vale fell upon thy eyes. On our ears, dulled by din of the marts of trade, by furnace blast and whirr of machinery, thy message falls low and inarticulate. It will yet blend with the voice of science, and the symphony will be as balm on hurt souls of men." "Science came among men as a slayer of gods. She laid her hand on the sun, and found him the bubble of a gigantic earth; she laid her hand on matter, and found it a shadow cast by force; on force, and found it a mode of motion; on lightning, and found it not; on light, and found it vibration of ether; on darkness, and found it quiescence of ether. At her touch, mystery after mystery melts away, but only to reappear in one universal mystery."

I remember no articles in *The Index* and *THE OPEN COURT* better than Professor Gunning's. They were full of important facts, told in the most interesting way possible, and written with a plain purpose of always telling the whole truth on the subject, and not keeping the best part back for that more convenient season which never comes. I was recently reading an essay by a lady who says that all disease is due to artificial habits of life, and justifies herself by asserting that wild animals are never sick. This assertion seemed incredible; but I could not make out the precise truth, until I happened to open a back number of *The Index*, where Professor Gunning calls attention to the fact that of several hundred lions and tigers shot by a French expedition in Algiers, every one had something the matter with its lungs. I also remember his saying that man would be the gainer for exterminating all the plants and animals, except about one species in five hundred. These and similar statements were meant to expose the common misrepresentation

of the earth, as providentially adapted to all the wants of man, and of nature as divinely perfect. This pious optimism assumes in the interest of religion, that whatever is, is right. Men are taught to accept all natural phenomena as perfect. It is but one step farther to accept all social institutions, especially those of great antiquity, as perfect also; and the result is opposition to philanthropy and reform. Nothing is more essential to progress and improvement than to believe of the world, that, as our friend says: "It is not good; but it is the raw material of good. Its excuse for being is that it is not always to be." Thus our friend served the cause of humanity in his uncompromising loyalty to truth. No wonder that, highly as physicians and college presidents enjoyed his lectures, he never held a permanent professorship in any college. It is a great pity, for no one could have done more to save young men and women from the sad mistake of thinking science dry or dismal. He would have shown them that nothing has such thrilling interest. But this was made impossible by passages such as I have just quoted. It is easy to see why, when we remember that, close to these very grounds, resides one of the most original and scholarly of living metaphysicians, a man of spotless character, burning zeal for imparting knowledge, and great success as a teacher. One of the dreams of his life was to be professor of philosophy in some university; but he never has been, and never will be. He deliberately made it impossible by taking the unpopular side in obedience to conscience, while a Unitarian clergyman. The same influences which have kept Frank Abbot from doing the work for which he was pre-eminently qualified as a Harvard professor, kept William D. Gunning also from his rightful place. It is due to his memory to say this plainly. We honor him all the more for making great sacrifices in the cause of truth.

It is pleasant to find him, after retiring for some years to rest from lecturing in Florida, return once more to the platform as speaker to an Ethical Society in Keokuk, Iowa. His exposition of the eternal principles of morality from the standpoint of science was a great success. Catholics, Orthodox Protestants, and Free-thinkers listened eagerly to his lectures. Men, women, and children gathered in classes, which he always met faithfully, no matter what might be the state of his health. He had been for some ten years troubled by symptoms in his throat which now developed into bronchitis. He had to leave Keokuk, but he could not give up his work. He accepted a call from Unity Hall Society, in Greeley, Colorado, and came there last January, a sick man. The trustees urged him to rest; but he felt too heavy a burden of thoughts which he must speak out. Twice he mounted



the platform, to be more impressive than ever before. He had already announced his third subject for the next Sunday, "Calm after Storm," when he was seized with the attack which carried him in six days, on March 8th, forever beyond all life's storms.

For him the storm has passed away. And after it, what? The calm of silent night? The calm of a summer noon, amid the fragrance of Paradise gardens, and angelic symphonies? His own choice would be neither of these. He would say, "No calm for me, but steady sailing onwards, through new realms of knowledge and duty!" Has he had his wish? We can at least believe that beyond the veil, there is no failure or disappointment, as there is no sickness, or pain, or sorrow. It is safe to make such denials; but what can we affirm? Still the Sphinx sits silent. Her lips do not open. Her riddle remains unsolved.

I cannot even think of our friend as completing his work, for I know that it was of a kind which must always be incomplete. When a theory is complete, it is laid aside and forgotten. By and by perhaps, it is taken up again, but only to be torn to pieces. All the field of knowledge is strewn with the fragments of philosophies and theologies, which, as soon as they were finished, gave place to new ones, destined likewise to pass away. I say this only to call attention to our friend's good fortune, in having given his life to a work which never can be finished, and which therefore must continue to interest the best thinkers so long as man endures. It has always done so. Long before there were any writers on science, long before there were any books, perhaps even before there was any articulate speech, in those dumb ages of human life, compared with which all history seems petty as an item in a newspaper, men were learning by sight and touch of the outer world. The earliest knowledge came through observation and experience. The most sure and useful knowledge always has. Modern science is merely preserving, interpreting, and enlarging the results of the primeval and eternal method, which is much more honored to-day than it ever has been before, since men began to record their thoughts. All that is built in this field becomes part of a structure which will outlast every other edifice. What Professor Gunning discovered in the Gulf of Mexico, or in Buzzard's Bay, has just as much authority as if it had been announced by Aristotle. What interest and value his observations have to-day, will remain imperishable. All the scientific knowledge of to-day will be part of the knowledge of the future; and much of it will prove more precious then than now. The scientist rests from his labors; but the work of science goes on continually. His name is treasured up with love and honor by those who follow him. His observations and discoveries are used again and again as

seed-grain, to yield harvest after harvest of new truth. Business, politics, and fashion, metaphysics and theology, all move in the paths which science marks out. All men do homage to the scientist, some delighting to honor him, others paying all the more sincere a tribute, because it is perfectly unconscious. His memory is enshrined in the grandest of mausoleums, the only one which can be called eternal. This is our friend's immortality. We need not try to honor his memory. He has made it permanently honorable. We can only hang our little wreaths of everlasting upon the stately monument which mightier men than we reared long ago.

## CLOSING HYMN.

O word divine, like healing balm	Who never mourned hath never known
To hearts oppressed and torn, Thy heavenly consolation falls, "Blessed are they that mourn!"	What treasures grief reveals,— The sympathies that humanize, The tenderness that heals,
To every hope by sorrow crushed A nobler faith succeeds; And life, by trials furrowed, bears The fruit of loving deeds.	The power to look within the veil And learn the heavenly lore, The key-word to life's mysteries. So dark to us before;

Hath never known how full of strength  
Our human spirits are,  
Baptized into the sanctities  
Of suffering and of care.

## GHOST STORIES.

A STUDY IN FOLK-LORE BY L. J. VANCE.

PART III.  
(Concluded.)

Glend. I can call spirits from the vasty deep.

Hot. Why, so can I, or so can any man;

But will they come when you do call for them?

(Henry IV, Part I—Act III. Sc. I.)

VIII. Finally we reach those ghosts that 'needs come from the grave to tell us this.' Ghosts of this kind come because they cannot help themselves. They are subject to the wishes and whims of their lord and master.

Athwart ghost stories in every clime and in every age comes the shadow of the man-who-talks-with-the-spirits. Such a man, like Owen Glendower, is not in the roll of common mortals. Like him, magicians loudly boast of their power to call spirits from "the vasty deep." They bring not only storm and sunshine, but they can bring from the grave spirits, good, bad, and indifferent. They go through certain mystic rites and secret ceremonies, whereby they converse with bodiless beings, "as with familiar friends."\* There is hardly a tribe so rude, so barbarous, that has not its Medicine-man, Meda, Jossakeed, Shamán, Angakok, or whatever name for magician, necromancer, 'medium,' we may take. When the Jesuit missionaries visited the Indians of North America they were surprised, to say the least, to find that the different tribes had 'medicine-men'—*jongleurs*, as Père Le Jeune

\* Schoolcraft, IV, p. 647; IV, pp. 490-498.



calls them.\* Yet, what Le Jeune regarded as peculiar to the Indians is familiar enough to uncivilized and civilized folk in all quarters of the globe.

Now, some of the queer doings of the savage necromancers who converse with ghosts, find fitting parallels in the doings of the 'professional' mediums, who call up disembodied spirits. Mr. Woods has recently printed an account of the manner in which the Shamán, or doctor-wizard of the Thlinkets goes to work.† "These Shamáns," he says, "claim to be able to see the 'life,' or soul leaving the body, or being dragged from it by spirits. . . . It is their business to seize the soul with the mouth and breathe or force it into the body." To this he adds: "I only saw one Shamán exorcising, and I do not believe he would have continued, had he known I was observing him. He kneaded, pounded, yelled, chanted, frothed, swayed to and fro, played tunes all up and down the suffering patient, blew in his mouth and nostrils, and literally worried the life out of him. In general practice, the Shamán continues till the wretched patient declares himself better."

A very similar description of the medicine-man's doings is given by Mr. Im. Thurn.‡ In this case the 'wretched patient' was Mr. Im. Thurn himself. Now, among the Indians of Guiana the doctor-wizards are called Peay. Having had a headache all day, Mr. Im. Thurn went to the Peay, and asked him to drive out the bad spirit that caused his pain. He was taken in the evening to the Peay's hut, and there went through a most remarkable series of crucial experiments. After the place had been darkened, a succession of horrible noises began; now low, mysterious whistlings and then loud, unearthly peals of what seemed laughter; at one time he would feel the near presence of some invisible being; at another time, the light pressure of a ghostly hand passed over his brow. This strange sort of hypnotism continued all through the long hours of the night, and when morning-light came, much to Mr. Thurn's relief, he was asked whether or not he was better. Replying in the negative, the Peay said he did not know how that could be, and thereupon produced a caterpillar or worm which, he said, had caused the ache.§ The whole thing, concludes Mr. Thurn, "was a very clever piece of acting and ventriloquism."||

From the same quarter comes a somewhat different kind of a savage ghost story. The story is told by W. Wyatt Gill and James Chalmers in their 'adventures

in New Guiana."\* "Last night, after turning in," they write, "we heard a peculiar noise as of some one in great distress, then loud speaking in a falsetto voice, and knew then what was up,—we had a spiritist in the village, and revelations were now about to be made. We were all named, and the places we were to visit. I felt somewhat anxious as to the revelation, for if it should be the least doubtful as to our going, no native would . . . stir with us. However, the revelation on being interpreted to us by Kena was all right. . . . The spirit dilated at some length on the good qualities of foreign tobacco, and the badness of the native stuff. . . . While at the morning coffee he (the spiritist) came and sat down along side of us, and we learned from him that the spirit of a deceased friend comes into him, and then things are revealed; the spirit speaking through him. He said that when we were at Ekiri, a few weeks ago, he knew it, and told the people of the village of it." Again, the authors write that, "our spiritist gave us a very short and indistinct *séance* last night. A man speared the other day in a Wallaby hunt, he told us was dead. He seemed to be raving a good deal."†

Once more, if the reader thinks that Indians are not familiar with some of our best known 'professional' spirit-tricks, he is mistaken. Time was when the celebrated 'rope-tying' trick was explained by the agency of spirits. Then the Davenport Brothers came and performed the same bit of jugglery unaided by any spirits. Col. Garrick Mallory has recently written an account of a wager made about the year 1858, between one Beaulieu and an Indian jossakeed at White Earth Agency, an abridged account of which is as follows:

"A medicine-lodge was made. The interior diameter was less than four feet, covered with blankets and birch-bark from the ground to the top, leaving an orifice of about a foot in diameter open for the ingress and egress of spirits, but not large enough for a man's body.

"A committee of twelve was selected to see that no communication was possible between the jossakeed and confederates. These twelve men were reliable people, one of them being the Episcopal clergyman of the reservation. The spectators were several hundred in number, but stood off, not allowed to approach.

"The jossakeed then removed his clothing, until nothing remained upon his person but the breechcloth. Beaulieu then took a rope (of his own selection for the purpose) and first tied and knotted one end about the ankles; the knees were then securely tied together; next the wrists; after which the arms were

\* Relations, Chap. IX. "Ce sont les jongleurs qui font les memes singeries que les sorciers pour tirer des autres quelques presens."

† Century Magazine, July, 1882.

‡ Among the Indians of Guiana. By Everard Im. Thurn, London: 1882. pp.

335-337.

§ Note the common superstition that a tooth-ache is caused by a little worm. Shortland's "Traditions of New Zealand," p. 131; Dyer's "English Folk Lore," p. 156, etc.

|| Loc. cit. p. 157.

\* "Work and Adventure in New Guiana." By James Chalmers and W. Wyatt Gill. London: 1885. pp. 109-111.

† Loc. cit. p. 111.



passed over the knees, and a billet of wood passed under the knees, thus securing and keeping the arms down motionless. The rope was then passed around the neck again and again, each time tied and knotted, so as to bring the face down upon the knees. A flat stone of black color—which was the jossakeed Manedo, or amulet—was left lying upon his thighs. The jossakeed was then carried to the lodge, placed inside upon a mat on the ground, and the flap-covering restored so as completely to hide him from view.

"Immediately loud, thumping noises were heard, and the framework began to sway from side to side with great violence; whereupon the clergyman remarked that this was the work of the Evil One, and it was no place for him; so he left, and did not see the end. After a few minutes of violent movements, and swaying of the lodge, accompanied by loud inarticulate noises, the motions gradually ceased, when the voice of the juggler was heard telling Beaulieu to go to the house of a friend near by, and get the rope. Now, Beaulieu suspecting some joke was to be played upon him directed the committee to be very careful not to permit any one to approach while he went for the rope, which he found at the place indicated, still tied exactly as he had placed it about the neck and extremities of the jossakeed. He immediately returned, laid it down before the spectators, and requested of the Jossakeed to be allowed to look at him, which was granted, but with the understanding that Beaulieu was not to touch him.

"When the covering was pulled aside, the jossakeed sat within the lodge, contentedly smoking his pipe, with no other object in sight than the black stone Manedo."\*

A variant of the above performance took place at Odanah on the Bad River Reservation in Wisconsin, and is narrated by Col. Mallory as follows: "The Shamán was tied much as before mentioned, but with all of his clothes on; a fish-net being tied above his clothes, enveloping the whole person; and horse-bells were attached to his body, so as to indicate any motion. When examined afterwards, the clothing had been stripped from his person, the nets, and ropes, and bells placed in a separate pile in the lodge, and the clothing was found by direction under a designated tree a mile off."

Before passing from this branch of the subject, let us note some savage *séances* on a level with "manifestations" which the Psychical Societies in England have investigated so learnedly. We might take the *séance* witnessed by Mr. Brough Smith, in Australia,† where the sorcerer, "lying on his stomach, spoke

to the deceased, and the other setting by his side, received the precious messages which the dead man told." We might, also, give the experiences of Dr. Moffat with African jossakeeds, well worthy of recital. But instead, I give two short but lively accounts of savage *séances*, which may well hold their place by the side of any "authenticated facts" furnished by the Psychical Society.

The first account is taken from Auckland's "Old New Zealand," and is told by the Pakeha Maori, an English gentleman, who lived among the natives as one of them.\* Among the New Zealanders the medicine-man goes by the name of 'Tohunga.' The exhibition took place in a darkened village-hall, where the spirit of the Pakeha Maori's own friend was called "from the vasty deep" by the Tohunga. "Suddenly, without the slightest warning, a voice came out of the darkness. . . . The voice was not the voice of the Tohunga, but a strange, melancholy sound, like the sound of a wind blowing into a hollow vessel." 'It is well with me: my place is a good place,' said the spirit. "The spirit gave answer to a question which proved to be correct, and then 'Farewell,' cried the spirit from deep beneath the ground. 'Farewell,' again, from high in air. 'Farewell,' once more came moaning through the distant darkness of the night."

The second account is taken from Mr. Howitt's "Kamilaroi and Kurnai."† "The fires were let go down. The Bira-ark (sorcerer) uttered the cry of 'coo-ee' at intervals. At length a distant reply was heard, and shortly afterwards the sounds as of persons jumping on the ground. A voice was heard in the gloom asking, in a strange intonation: 'What is wanted?' Questions were put by the Bira-ark, and replies given. At the termination of the *séance* the spirit-voice said: 'We are going.' Finally, the Bira-ark was found in the top of an almost inaccessible tree, apparently asleep." Mr. Howitt adds, 'it was alleged that the ghosts had transported him there at their departure.'

A variant of the above *séance* is recorded by Mr. Howitt in the "Journal of the Anthropological Institute." "A man who was present in the camp on the occasion of one of Mundanin's performances, said as follows: 'In the night his wife shouted out, 'He is gone up.' Then we heard a whistling in the air, first on one side of us, then on the other, and afterwards as of some people jumping down on the ground. After a time all was quiet. In the morning he found Mundanin lying on the ground near the camp, where the 'Mrarts' (ghosts) had left him. He had a big log across his back. He seemed as if asleep, and when we woke him up, and took the log off him, he began

\* Another account of the rope-trick, by an Angekok, is given in Crane's "Hist. of Greenland."

† "Aborigines of Australia," Vol. 1. pp. 107-109.

\* Auckland, p. 138.

† P. 231.



to sing about the 'Mrarts,' and all he had seen above."\*

What can be said of savage ghosts that come when you do call for them? They are kith and kin to 'professional' ghosts. What do we think of such ghost stories? Well, they are on a par with the "recorded instances" of performances given by our latter-day 'mediums.' Suppose, at the close of a *séance* in the Academy of Music, Miss Kate Fox should be found in the top of a telegraph-pole, in front of the hall, apparently asleep? We should say that her exhibition of "powers" was no greater than that given by the Australian Bira-ark. If this view be correct,—and it is,—modern 'manifestations' become plain enough when put side by side with similar manifestations among savage men.

Remember that ghost stories of this kind were perfectly familiar to the ancient Greeks and Romans. Perhaps the liveliest account of an ancient *séance* is told in one of the dialogues of Lucian. In the *Philopseudes*, Kleodemos says, that he saw a Hyperborean conjurer flying and walking on the water. "What!" says his astonished listener, "you saw the Hyperborean man flying and walking on the water?" "To be sure," replied Kleodemos, "but what's the use of talking of such trifles, considering what other manifestations he showed us—sending loves, calling up dæmons, raising the dead, and bringing in Hekate herself visibly, and drawing down the moon?" The speaker says that the conjurer had his four minæ down for sacrificial expenses. "He then made a clay Cupid, sent it flying through the air to fetch the girl whom Glaukias had fallen in love with, and, presently, lo! she was knocking at the door!"

It was against the magical practices of these pagan conjurers that the Fathers directed much of their energy and a great deal of their thunder. And we find that the sharpest and shrewdest opponents of the Early Church were these very conjurers who attempted to show that the so-called 'miracles' were in their *répertoire*. Yet, in a few hundred years, their Christian successors claimed to do what the Fathers had vehemently denied. Thus, mediæval mystics enjoyed all the attributes commonly ascribed to jossakeeds, or medicine-men. They could call up spirits from the deep, could converse with the dead, and could enter the abode of the disembodied spirits.† They manufactured homunculi, and learned to make magic ointments, by virtue of which they sailed through the air.

Consequently, the literature of the Middle Ages is full of stories of half-starved saints who held mystic intercourse with bodiless beings, of fat-witted sinners

who practiced the 'Black-art.'‡ Still, the sinners knew just enough science to make their art look black to the common people. They 'passed the nights of years in sciences untaught.' Hence, there arose the superstition among the folk that deep learning was necessary for an exorcist. Indeed, in the 'Comedy of Errors,' the schoolmaster, Pinch, is introduced in this rôle. In 'Hamlet,' the rough soldier, Marcellus, alluding to the ghost, says:

"Thou art a scholar; speak to it Horatio."

Another mediæval belief was, that only those born with certain spiritual gifts could exorcise disembodied spirits. The *Malleus Maleficarum*, the orthodox authority, declares that 'holy men' were by spiritual sorcery marked with the stigmata.

Such a belief has survived, for example, in negro folk-lore. According to the negro superstition, only those "born with a caul" can converse with ghosts. In Mr. Jones's recent volume of "Negro Myths," we have July's declaration that "people wuh no bin born wid caul kin yeddy (listen to) sperit, but dem can't shum" (see them). "Me an' sperit good fren"—and this is what all medicine-men say.†

But, passing down to modern times, a great revival of ghost stories of this kind took place after the wondrous revelations of Emanuel Swedenborg, in the last century. Here was a man who, like July, was good friends with the spirits. Here, too, was a man who drew no hard and fast line between the spectres of his imagination and the visions of his reason.‡ Swedenborg claimed that to him was given the power to enter the spiritual world, and to see what was going on there. "The spirits," said he, "knew no other than I was one of themselves." From these and other similar statements Swedenborg simply claimed to see, talk, and walk with his spiritual companions—just what every ghost-seer has always claimed,—no less, no more.

Let us give, by way of concluding this comparative study of ghost stories, a short account of the modern *séance*, and see how it compares with the savage. It is abridged from Walter Thornbury's description of a *séance*, in 1871:

"I went up into a stuffy parlor, and found about fourteen people, nervous and evidently uncomfortable. Presently, Messrs. A. and C. (two young men) entered, seated us around a table, and requested us to

\* For a brief summary of this period in Europe, see Mr. Lecky's "History of Rationalism," Chapter I, "Magic and Witchcraft," while for ghost stories see Glanville's "Sacerdismus Triumphatus," Bodin's "Démonomanie des Sorcierers," Madden's "Phantasmatia"; Thiers, "Traité des Superstitions," and Garinet, "Hist. de la Magie en France."

† "The manner in which a man became a Bira-ark was generally believed to be, that being found alone in the forest by the 'mrarts' (ghosts) they took him up with them and taught him." A. W. Howitt in *Journal of Anth. Inst.* Vol. XIII, p. 196.

‡ Dr. Maudsley, ("Body and Mind") makes out a *prima facie* case of madness against Swedenborg.

\* On Australian Medicine-men; or Doctor and Wizards of some Australian tribes." A. W. Howitt, "Journal," Vol. XVI, p. 23.



join hands. The gas was turned down, and the *séance* began. A. was at one end of the table, facing C., at the other. . . . All at once Mr. C., at the further end from me, began to gurgle and groan like a person in an epileptic fit. Some one cried: 'Turn up the gas!' It was done, and we beheld the medium with his head twisted in the folds of a red tablecloth. . . . Things looked dull. All at once we were hailed by one of the most tremendous gruff bass voices that ever hailed a man-of-war. John King, the favorite spirit of Mr. A., had appeared with a grumbling announcement of his presence. 'Who is this John King?' inquired one of the party. 'He lived about three hundred years ago,' said some one in the dark. On John King growling that there he was and what did they want, a skeptic exclaimed, in a dramatic manner: 'Rest, rest, perturbed spirit.' . . . After a few minutes there were sounds of violent blows, and several skeptics were struck on the head, a sofa-cushion was flung at me. A man near me said, he thought he felt a cold breeze passing over his hands and a cold finger touch his. . . . A lady requested that 'Kate' appear. Kate is Mr. A.'s second 'familiar.' Presently, a little whiffing voice announced Kate. By and by two stones were thrown violently on the table, but no one expressed audible alarm. . . . Sometimes I fancied the table jerked, or reared a little; sometimes I thought I heard animal feet pattering up and down the table. . . . No more voices coming, Mr. A. proposed our changing places 'to improve our conditions,' . . . but no result came.

Here ends our comparison of stories of ghosts that 'come when you do call for them.' The gist of the whole matter has been briefly but clearly stated by Mr. E. B. Tylor, who studied the subject from the anthropological standpoint:—"Suppose a wild North American Indian looking on at a spirit *séance* in London. As to the presence of disembodied spirits, manifesting themselves by raps, noises, and other physical actions, the savage would be perfectly at home in the proceedings, for such things are part and parcel of his recognized system of nature. The part of the affair really strange to him would be the introduction of such arts as spelling and writing, which belong to a different state of civilization."<sup>7</sup>

There are some things 'Shamán,' and 'medium' can do, but a great many things they can not do. What they can *not do*, has been quaintly summarized by the 'Melancholy' Burton thus: "And yet for all this subtlety of theirs, as Lysius well observes, Phys. Stoicor. lib. I. chap. 17, neither these magicians nor devils themselves can take away gold or letters out of the mine or Crassus's chest, *et clientelis suis largiri*; as Bodin notes they can do nothing *in judicium decreta aut panas*, . . . they cannot give money to their clients,

alter judge's decrees, or councils of kings, these *minuti Genii* cannot do it, *altiores Genii hoc sibi adseruunt*, the higher powers reserve these things to themselves." Anat. of Melanch., Part I. Sec. 2, Sub. 3.

Now, the method of folk-lore is to compare ghost stories wherever we may find them. My general thesis has been, and is now, that the difference between the savage ghost story and the ghost story of civilized folk is one of degree, not of kind. We believe that stories about ghosts arose in savage minds, which drew no hard and fast line between dreams and realities, which believe in a "choir invisible," while notions about the shades or spirits of the departed were vague, confused, and irrational. Holding this, we have found that the stuff of ghost stories—the mind-stuff as the Prof. Kingdon Clifford might call it—is everywhere the same. It is the world over as with us, "*c'est partout comme chez nous*!"

But it may be asked, how did it ever come that notions of ghosts were born in the savage brain? How do you account for the "facts" adduced by Messrs. Gurney, Myers, and others? To answer the first question is no part of our business.

As to the "facts" collected by a great number of psychical inquirers, a word may be said. We agree that there is a great mass of evidence from persons who declare that *they* actually have seen beings and things materialize out of nothing. They ground their belief on the solid basis of their senses. That is right enough; but can the senses be misinformed?

That is to say, can I doubt my own eyes? Now, the *rationale* of seeing is pretty well known. We know that light emanating from each point of an object falls upon the eye: that it passes through several lenses and humors and is made to converge upon a point in the retina, where a picture is formed as in a camera-obscura: that the object is thus placed in direct communication with the brain. Beyond this we do not know. No one can say just how the image on the retina is connected with the impression on the brain. When a person tells us that he "sees" an object, let us say a ghost, his belief may come from some external object acting upon his brain through the eye, or it may proceed from some *other action* upon the mind.

Let me illustrate. If a blow is struck on the eye, a man says that he "sees," and he may 'see' things, too, which have no visible existence. An electric current applied to the nerves of the eye may also cause a man to 'see': if applied to the nerves of the ear he may 'hear' sounds and noises amid the deepest silence. To sum up: a man 'sees,' as he truly believes, objects which actually have no visible existence: he 'hears,' as he firmly believes, noises and sounds which likewise have no audible existence.

Truly, our world is full of sights and sounds that

<sup>7</sup> Primitive Culture. Vol. I. p. 155.



are within the ken of some, but beyond the ken of others. Thus, a ghost story is a good deal like Keat's

"Doubtful tale from fairy-land  
Hard for the non-elect to understand."

The non-elect can better understand

'The tale  
Of horrid apparition, tall and ghastly,  
That walks at dead of night, or takes his stand  
O'er some new-opened grave, and, strange to tell,  
Evanishes at crowing of the cock.'

For they know that ghost and goblin cannot bear the strong morning sun-light, and so vanish at the crowing of the cock at the dawn of day.

#### THE MEMORIAL SERVICE TO PROF. WM. D. GUNNING.

The Memorial Service upon the interment of the remains of the late Professor William D. Gunning, whose death occasioned so lamented a loss to the world of advanced Free Thought and the friends of Ethical Culture, was held at Cambridge, Mass., on the 8th of August of the present year. The services were singularly impressive. Prayer was offered by Rev. Dr. Holland of Concord, Mass. The two beautiful and appropriate hymns, printed in this number of *THE OPEN COURT* at the beginning and close of Mr. Frederic May Holland's Memorial Tribute, were expressively rendered by lady members of the Ethical Society of Boston. The Service of Song was due to Mrs. C. M. Bisbee. In a touching address, Mrs. Bisbee spoke as follows:

"All sorrow is sacred, and when a great presence like that of our friend is taken from our midst, one feels so inexpressibly sad that words, the tenderest, seem irreverent. We are tempted to ask: Why all this sacrifice? Why this apparent break in Nature's course? The death of Mr. Gunning came to me in this way. Just as ethical culture demanded a broader basis, one free from the sectarianism of philosophy as of theology, its able representative in the West and advocate of this higher platform, is withdrawn. I feel the loss to our New England States, for the letter I have in hand (dated December 12, of last year) promises, if possible, co-operation with our Boston Ethical Society in an earnest Spring Convention. What help for a grief like ours? I find it first of all in the invariableness of law. Brother Chadwick has said: 'Invariable law is but the scientific way of saying Everlasting Faithfulness.' What can be more inspiring than perfect confidence in this? I find help again in the enthusiasm of our friend for good—an enthusiasm so pure and so intelligent that it leaves a trail of light behind. I believe his genius has brought that 'great and commanding moment in the annals of the world' which Emerson calls a 'triumph of enthusiasm.'"

### CORRESPONDENCE.

#### PROF. W. D. GUNNING.

To the Proprietor and Editor of *THE OPEN COURT*.

DEAR SIR:—On August 8th, Memorial Services were held at Mt. Auburn Cemetery, Cambridge, Mass., on the interment of the remains of the late Prof. William D. Gunning. As you have already noticed in *THE OPEN COURT*, his decease occurred at Greeley, Colorado, March 8th of this year. I send you some local newspaper reports, and Mr. Fred. May Holland's manuscript address, written for the occasion, not before in print.

There was a paper which, had Prof. Gunning continued with us, he would have given you in due time. It was the treatment, or rather reconciliation, of the differences in the arguments of Dr. Montgomery and Prof. Cope, as published in *THE OPEN COURT*. It was matured in his mind, but his social work, and sudden

physical decline, prevented the writing out, or committing the points even verbally to me. \* \* \*

Had I been aware what was in store—that the close of my husband's life was so near, I could have accomplished the writing of the Cope-Montgomery article. But he was surrounded by the demands of social labor which allowed no time for a thought of the end to creep into my mind. Hope always sustained me, at least until the final attack, six days before the close. He was convinced for a long time that the disease, bronchitis, would conquer at last. Still he never acted the part of an invalid. He mingled in society—and sustained his desk work until a month before the close. It is but another expression of the "Incomplete."

With earnest wishes for the success of your journal, I am truly yours,

MARY GUNNING.

WALTHAM, MASS.

#### MR. SOL. LEVY IN REJOINDER TO "WHEELBARROW."

To the Editor of *THE OPEN COURT*:—

This is not a personal controversy with "Wheelbarrow." I am not fighting men, but contending for principles. Funny stories and humorous episodes of "Wheelbarrow's" life will be of little value to the solution of serious problems.

I can give not one, but many, instances where economy has had the effect of reducing wages, and I hope that after having demonstrated this it will be easier for my opponent to treat this "doctrine" courteously. The reason cigars are made at such pitiable wages, where formerly people in this industry enjoyed comparatively fair earnings, is, that many Bohemian workmen have come over who are more economical and whose standard of living is considerably lower, to whom a filthy room in a crowded tenement is both a shop and a "home," and who force the American workmen to either accept their standard of living or go into other occupations. The wages of Pennsylvania miners have been reduced to about a dollar a day, by getting frugal and economical men from Italy and Hungary. These people, by denying themselves every comfort, still manage to save some money, which again has the tendency to further reduce wages.

So, in all branches of production and in all countries, the facts are patent that the strictest economy, long hours of labor, and low wages go hand in hand. According to "Wheelbarrow's" logic, the highest wages ought to be paid in China. What class of people is more economical, more sober, and more industrious? Yet it avails them nothing. Certainly, no one advocates extravagance or intemperance. I consider sobriety a virtue, but sobriety does not mean abstinence.

I have slightly misquoted Col. Ingersoll, having quoted from memory. To show how even a great lawyer and a man of rare accomplishments is liable to lose his reputation as a scholar when confronted by "Wheelbarrow's" school of political economy, I here quote the exact language in reference to the point under dispute. "The capitalist comes forward with his specific. He tells the workman that he must be economical, and yet, under the present system, economy could only lessen wages. Under the great law of supply and demand, every saving, frugal, self-denying workman is unconsciously doing what little he can to reduce the compensation of himself and his fellows. The slaves who did not wish to run away helped fasten chains on those who did. 'So the saving mechanic is a certificate that wages are high enough.' Does the great law demand that every worker live on the least possible amount of bread? Is it his fate to work one day that he may get enough food to be able to work another? Is that to be his only hope—that and death?" (Some Interrogation Points, *North American Review*, March, 1887, page 226.)

But this is not to be done by throwing chunks of wisdom at the head of the laborer by preaching temperance, frugality, and self-



denial, by telling him to be good, virtuous, and economical; it can only be done by restoring to labor its natural rights, by opening up the storehouses of nature, by giving labor a chance to employ itself.

What is more unnatural than a laborer forced into idleness? Mr. Powderly tells us that there are more than a million of people out of work. Is not labor the creator of all wealth? The factor that satisfies our wants and administers to our desires? Are all our wants satisfied, all our people fed, clothed, or housed? Why, then, cannot labor employ itself to satisfy its accounts? The answer is plain. Because land, the indispensable passive factor of production, without which labor cannot engage in creating wealth, is fenced in; the treasures of nature are locked up and the monopolist holds the key, and before the laborer is permitted to work, he must pay blackmail for the use of what is his own to an equal extent with all.

This is the cause which we single-tax men have attempted to remove; not that we believe it to be a cure for all ills, but we hold it to be the most fundamental reform, one that must precede all others, and that will make all other reforms easier. Seeing the human miseries it causes, we see the happiness its removal would bring; but he who can see only in it a mere fiscal change, who judges the benefit of this reform by the amount of dollars it will bring into the public treasury, who considers it a tax on the products of labor, a "punishment" for the use of the soil, will certainly look with a feeling of contempt mingled with pity upon our enthusiasm, to his mind so out of proportion to the results to be obtained.

Every reference to the scheme is a proof that "Wheelbarrow" mistakes both its purpose and effect, and hopelessly confuses a tax on land-values with a tax on land.

He makes it appear that only Mr. George's disciples believe that land values should be taxed to the last penny, thus implying that Mr. George himself entertains no such idea. "We hold," says Mr. George's *Standard*, "that to tax land values to their full amount will render it impossible for any man to exact from others a price for the privilege of using those bounties of nature in which all living men have an equal right of use; that it will compel every individual controlling natural opportunities to either utilize them by the employment of labor or abandon them to others; that it will thus provide opportunities of work for all men and secure to each the full reward of his labor, and that as a result involuntary poverty will be abolished and the greed, intemperance, and vice that spring from poverty and the dread of poverty, will be swept away."

This simple, just, but radical reform, Wheelbarrow terms "the most tremendous feat of engineering ever done by mortal." How singularly all such reasoning conflicts with the well developed and mature opinions of scientific writers may be seen from the following quotations from Herbert Spencer (*Social Statics*, Chap. VIII): "Such a doctrine is consistent with the highest state of civilization; may be carried out without involving a community of goods and need cause no very serious revolution in existing arrangements. The change required would simply be a change of landlords; separate ownership would merge into the joint-stock ownership of the people.... instead of paying his rent to the agent of Sir John or His Grace, he would pay it to the agent of the community.... A state of things so ordered would be in perfect harmony with the moral law. Under it all men would be equal landlords, all men would be alike free to become tenants."

All monopolies rest directly or indirectly upon the land monopoly. That gone, Wheelbarrow cannot point out one monopoly that can stand this change.

But it is said land values are nothing but the products of labor, and therefore in taxing them we will still be taxing industry. If Wheelbarrow can prove this I shall become his disciple to his position on the labor question, whatever that may be. Products of

labor are the results of human exertion, the expenditure of human muscle and mind upon natural resources, the raw material of nature transformed, blended, fashioned, or formed by human exertion for the purpose of satisfying human desires. Land values, however, are not the product of human exertions; they are not a product at all, but simply a value that attaches to the bare land by the growth of a community. The taking of this fund, made by all for the use of all would not be a tax at all but in the correct sense of the term would simply be rent.

Thus it will be seen that this progressive political economy is based, in the last analysis, upon absolute justice, equality, and a clear perception of the rights of man. For it is as true to-day as it was a hundred years ago when the French national assembly declared that "ignorance, contempt, and neglect of human rights" is the sole cause of public misfortune.

SOL. LEVY.

### MONETARY PROBLEMS.

A SERIES OF QUESTIONS ADDRESSED TO "WHEELBARROW."

Mr. Wheelbarrow:—

1. Is a sound financial system the greatest of superstructures upon which any good government rests?
2. Is there a shorter, as well as a better, method of accounts than with money as a circulating medium?
3. Is money, as a circulating medium, other than a representative of value?
4. If there be those who can expand, or contract, the volume or amount of money, and they should so contract said volume or amount, would, or would it not, hamper all persons engaged in adjusting their accounts with others by the use of said circulating medium?
5. If those having said circulating medium should say to those needing it for the purpose of adjusting their account with their fellow, come, you must, by our law, have this circulating medium, in order to adjust your account with your fellow, and while I am aware you cannot afford to pay so much for the use of it, yet, if you will pay our price, we will help you out this once, and that price should be three times what the party could afford to pay, what effect, if any, and more especially if the controller of the volume continues so to act, will such and kindred acts have in driving the buyer of it to poverty?
6. What would you say, if there should be such persons with such a power, as to its being a safe one for them to exert or use?
7. If money be a representative of value, or short method of accounts, what, if any good reason, can you give for such costly representatives as silver and gold?
8. If the increase of wealth in a nation per year be represented by the gain per cent. upon its principal, is, or is it not, true that but the three classes, agriculture, manufacture and mining, create that nation's wealth?
9. If the remaining class, commerce or the wealth-distributors, should take a greater rate than the other three get for their distributing process, will the one not become wealthy and the other three go to poverty?

C. B.

WHEELBARROW IN REPLY.

To the Editor of THE OPEN COURT:—

What have I done that those questions should be thrown at me? I am innocent both of monetary science and political finance. The banker's grammar is very hard Greek to me. The prickly phrases that bristle all over the tree of gold and silver knowledge sting me like the blackberry-thorns of years and years ago. I have never been initiated into the esoteric mysteries of money. The occult jargon of "circulating medium," "measure of value," "double standard," "ratio of exchange," "elastic limit," "minimum reserve," "multiple tender," and all the rest of it, is a perpetual headache to me. I cannot tell the difference between an



obolus and a kobang. I know no more about "Gresham's law" than Gresham did. But the moral "standard" of money may be as plain to me as to the banker or the statesman, perhaps plainer. By that standard all "circulating mediums" must be tried.

It would be easy for me to say, "give it up," and thus escape those conundrums, but that is an ignoble retreat, and especially where the questions include a compliment, implying a belief in the inquirer that I am competent to answer them. This compliment is gratifying to me, and it would be ungracious not to say so. When Mr. Toots was asked, "What are you going to do with your raw materials when they come into your ports in return for your drain of gold," he boldly answered, "Cook 'em." So I will at least attempt an answer though I may fire as wide of the mark as Mr. Toots himself.

I am always a little suspicious of hypothetical questions, and questions which conceal within them an expression of opinion, or the statement of a fact, because a man unskilled in the artfulness of logic, may in his answer unintentionally confess the fact, or subscribe to the opinion. It may be that I am walking into an ingenious verbal trap, but whether or not, I will at least be as brave as Toots.

To the first question I answer, No! I am sure good governments have superstructures greater and stronger than financial systems. It appears to me that financial systems are merely expedients of government. They are only agencies created by government, for purposes of national housekeeping.

The second question is not clear as it might be, and perhaps in trying to answer it I may be springing a dead-fall for myself, but I do not know of any shorter or better way of keeping accounts than with money as a circulating medium.

To the third question, I answer, Yes! It will circulate as a "medium" all round the world by force of its own actual positive worth, when it cannot travel the length of a street as a "representative" of value.

I tread with caution all around the fourth question. I think it conceals a trap big enough for a grizzly bear, let alone Bre'r Rabbit. It begins with "volume or amount of money," and ends with "said circulating medium." Do "money" and "circulating medium" in this question mean the same thing? However, giving the language a liberal construction, and supposing it means the metal coins, and the paper "circulating medium" known as currency, I answer in the affirmative. It would work very great injury to the community if any persons had the power to expand or contract the volume of money, at their own will; and among those persons I include the person called "government," the most dangerous of them all. At the same time I do not see how it is possible to expand money except by digging it out of the ground and coining it. This kind of expansion is always a public benefit, while the expansion of paper credits, which pass under the name of money, is very likely to be an injury, especially to the poor, and all who live by wages.

The fifth question I suppose refers to the rate of interest for money, and suggests, again, the hard bargain between Shylock and Antonio. I wish I knew some way by which those "having said circulating medium" might be induced to share it with those who have none, or, at least, to lend them some of it without exacting usury, but I fear I shall never discover the way.

The sixth question assumes that there are persons who have the privilege of expanding and contracting the circulating medium at will, so that by making money scarce and dear they may exact extortionate usury and oppress the poor. In answer to the question, I promptly say that, if there are persons possessed of such a dangerous power, it ought to be taken from them. It is not a safe one for them to "extort or use;" at least, it is not a safe one for those who happen to be scarce of "circulating medium."

The seventh question assumes that money is only a represent-

ative of value, or short method of accounts. I think that metallic money is all that and something more. It has value of itself outside and beyond its money uses, and that is the reason why it has always been the money paramount. It is "a thing of beauty and a joy forever." Silver and gold are not "costly representatives." They are costly actualities, and in this very costliness lies their supremacy as money.

Is it fair to demand of me *good reasons* for using silver and gold as money? "If reasons were plenty as blackberries, I would not give you a reason on compulsion." To demand *good reasons* is a species of compulsion. I can only render such reasons as I have. They may be good, or they may be bad. The jury, the readers of THE OPEN COURT must decide. I might answer from the books, as we answer our adversary's move when we play a game of chess by letter. I find by the books that the reasons for using gold and silver as money are their superior homogeneity, utility, portability, cognizability, indestructibility, divisibility, stability, and ductility. These ought to be convincing, but I have others. For thousands of years all other kinds of money have rendered homage and confessed allegiance to gold and silver for the privilege of circulating as money at all. For ages, all other kinds of money have come to gold and silver to be measured, and to receive their tickets of "ratio." Men instinctively trust in gold as the foundation and basis of all money, and as the safest of all. Their faith in other money rests on gold as its ultimate redeemer, and unless that promise of redemption, appear somewhere about it, all token, credit, promissory, representative, and substitute money stands condemned by common consent. You may demonetize gold by statute, and it will stalk through the marts and markets, lord paramount of money, in defiance of the law. It is natural money by the constitution of commerce, by the common law of the world.

The eighth question demands my surrender to the combined powers known as Agriculture, Manufactures, and Mining. I am not ready to give myself up. I admit that so far as human labor makes the wealth of a nation those three powers give more than others to the aggregate fund, but they do not contribute all. Hunting, fishing, and some other human activities contribute something, and there are agricultural products, manufactured articles, and minerals whose value consists more in the labor of those who distribute them than of those who raise them, fabricate them, or dig them out of the ground. For instance, Nature has established coal cellars in different parts of the country and filled them full of coal. Underground Pennsylvania is one of those coal cellars. Now, the value of that coal up stairs at the mouth of the pit is not only what the laboring miner has given it, but also what the capitalist who sunk the shaft, and the engineers who contrived the means to reach the coal, have given it. The value of it in Chicago is what all those together and the distributors have given it by their joint exertions, and the distributor may have furnished the larger share.

To the ninth question, I answer that the hypothesis appears to me to suppose an impossibility. The last value of an article is the price paid for it by the consumer, and that price includes the reward of everybody who has had anything to do with it. Commerce can get its own share and no more. It cannot get the share of the farmer, the manufacturer, or the miner. If it could, they would consume their own products, and commerce would cease to be. Each of the "three classes" gets the price of its product at the farm, the shop, or the mine. The "wealth distributor" then takes charge of it, and carries it to the dearest market he can find. He charges "whatever the traffic will bear," and the consumer pays it all. The bridge between the original producer and the final consumer may be long or short, and the person who carries the "projuice" over it may be an extortioner, but after all, he cannot get any more than the traffic will bear. That the profits may be more fairly shared by the other "three classes" is the ob-



ject of state railroad-regulations, inter-state commerce laws, and similar contrivances, some of them wise and some of them not. Whatever rate the wealth distributor may charge for his work, it does not follow that therefore the farmer, the miner, and the manufacturer must "go to poverty."

It may be that there is no common agreement between my questioner and me as to what really constitutes money. He may recognize many potencies as money that I reject, and after all, we may be strangers to each other's meaning, like two men trying to converse together in different languages. I remember long ago, when I was meandering through France, how vexed I used to be at the stupidity of the French people, who could not understand their own language when spoken to them by me. So, I fear my questioner may be vexed at my dullness because I do not understand exactly what he means by money.

There are many "circulating mediums" of bad character traveling about as money, and they are doing a very extensive business on false pretenses. Certain substitute money, having served for a time in that capacity, declares itself real money, is recognized as such, and does a great deal of mischief before it can be arrested and suppressed. For this, government is responsible. It has usurped prerogatives and powers that belong to omnipotence alone, and with cheap money it has cheated the poor man out of his wages. It was a daring and arrogant usurpation when governments declared money to be a legal-tender in payment of debts, for by doing so, they made a political standard of honesty, elastic, uncertain, and shifting from time to time. This despotic legislation has thrown the whole system of human dealing into a chaos of moral confusion. Governments declare tobacco, coon-skins, rum, promissory notes, and various other things to be legal-tender in payment of debts, and the consequence is, that the sense of moral obligation is weakened among the people.

I do not mean to say that it is not within the legal province of the supreme power in the state to close its courts to creditors, and declare that certain coon-skins, or other legal tenders, having been offered them, their debtors are free, and their debts paid; but, in the dominion of morals, the act is absolutely void. There justice reigns, and a debt is not paid until the moral obligation it contains is cancelled. Great as this government is, it is not able to pay any man's debt by statute. It may declare the debt expunged, satisfied, wiped out, even "paid," but only the debtor can pay it. The moral confusion in these cases arises from the use of the wrong word, "payment." A debtor, finding that his debts are "paid" by legal force, is apt to think that the moral obligation, as well as the legal obligation, has been discharged by the laws of his country, when, in fact, the moral obligation can be discharged by himself alone. "I owe you nothing," said a dishonest debtor to his creditor, "that note was outlawed last week." In like manner the bankrupt, having passed through the court, thinks that he owes nothing and that all his debts are paid.

It was a fantastic dream of the alchemists that by chemical expedients they might change the baser materials into gold, but it is a more irrational fanaticism that believes in the power of governments to create money that will pay debts. All the resources and skill of the alchemists failed, and there is no political alchemy that can perform this miracle. Right here, perhaps, my questioner and I find ourselves trying to converse together in different languages. He may mean one thing by "money," and I another. Until we can reach a common understanding as to what really constitutes money, we shall have no foundation whereon to build "a sound financial system."

WHEELBARROW.

O virtue, virtue! as thy joys excel,  
So are thy woes transcendent; the gross  
Knows not the bliss or misery of either world.

THOMSON—*Agneumion*.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXV—Continued.

"The ladybird knows your Highness's future," said Ilse. "You should ask it: Ladybird, ladybird, shall I be happy long?—one year, two years? and so forth, till it flies away."

The Prince began the sentence, but had not arrived at the first year when it flew away.

"That does not apply to you," said Ilse, laughing, to console him. "The little creature was angry at me yet."

"I had rather bear the misfortune myself," said the Prince, in a low tone, "than that you should suffer it."

While Ilse, startled at the deep meaning of his words, turned to the ladies, he stealthily picked up the kerchief that had fallen from her shoulders, and, behind a tree, pressed it to his lips.

Still merrier did the young people become, when from the hut behind the bushes two men stepped forth with red-coats and drums, and invited them to try their skill at the popinjay. The Chamberlain took the superintendence of the boys, and Ilse of the girls; foresters and lackeys helped with the cross-bows; the arrows struck incessantly on the body of the bird, for the hitting was made easy, and those who did not win could admire the prizes, which were arranged on two tables. Everything went on smoothly, as is fitting at Court fêtes; the lackeys moved incessantly among the company, with every imaginable refreshment; the splints from the popinjays fell like hail, and the Prince distributed the prizes to the children who thronged round him. Bertha Raschke became queen of tournament, and a little son of the Consistorial Councillor her consort. The children, carrying their presents, followed the drummers with joyous shouts up to a long table, where a supper was prepared for them. They were to sit down with the king and queen in the middle. The foresters and lackeys served the different courses. The Chamberlain could not have devised anything better to please the parents; and the fathers walked behind the chairs and enjoyed seeing the little ones drinking harmless wine out of the crystal glasses, their rosy faces expressing delighted astonishment at the beautiful china and silver dishes. They soon became merry; finally the little Consistorial Councillor proposed the health of the Prince; all the children cried "Hurrah!" the drummers drummed, the music struck up, and the parents stood round thanking the giver of the feast. Ilse brought a garland of wild flowers which the ladies had woven, and begged permission of the Prince to put it upon him. He stood amidst the happy party elevated by the innocent joy of all around him, and by the re-

\* Translation copyrighted.



spectful attachment which was visible on all countenances. He looked at Ilse with silent thanks, and without apparent cause his eyes filled with tears. Again the children screamed out "Hurrah!" and the drums beat.

A horseman in strange livery galloped out of the wood; the Chamberlain, in consternation, approached the Prince, and handed him a letter with a black seal. The Prince hastened into the tent, and the Chamberlain followed him.

The wild flowers had brought the young gentleman no good fortune. The pleasure of the *fête* was over; the company stood in groups about the tent, uncertain and sympathizing. At last the Prince and the Chamberlain came out. While the latter turned to the Rector and to those who surrounded him, Ilse saw the Prince at her side with deep sorrow depicted on his countenance.

"I beg of you to excuse me to the ladies, as I am obliged to depart immediately: my sister's husband has died, after a short illness, and my poor sister is very unhappy." In great agitation, he continued: "I myself knew my brother-in-law only slightly, but he was very kind to my sister, and she felt happier with him than she had ever been in her life. She writes to me in despair, and the misfortune is for her quite inexpressible. Under existing circumstances she cannot remain in her present abode, and I foresee that she must return to us. It is our bitter fate always to be tossed about, never to remain quiet. I know that I shall meet with a similar misfortune. I feel myself happy here,—to you I can confess this,—and I regret to say that this death makes it very uncertain whether I shall ever return. I go to my sister to-morrow for a few days. Pray think of me kindly."

He bowed and retired into the tent, and in a few minutes his carriage was on its way back to the city.

Ilse hastened to her husband, who had been requested by the Chamberlain to act for the Prince. It was immediately determined to break up the party: the children were put into the carriages, and the rest returned to the city in earnest conversation.

Meanwhile Laura feigned illness, and sat in her little sitting-room rummaging about among the old ballads. After the meeting in the village garden she had discovered with dismay that, in her anxiety about the Doctor, she had much diminished her treasure: full a dozen of the best were gone, and thus the tie by which she held the collector's heart fast threatened to come to an end. She had, therefore, not sent anything since the drinking-song. But to-day, when the Doctor had experienced treatment that gave her more concern than it did him, she sought for something to console him.

A heavy step on the staircase disturbed her in the

work of selection. She had hardly time to throw her treasures into the secret drawer before Mr. Hummel was at the door. It was a rare visit, and Laura received him with the foreboding that his coming portended serious results. Mr. Hummel approached his daughter and looked at her closely, as if she had been a new Paris invention.

"So you have a headache, and could not accept the invitation? I am not accustomed to that in my daughter. I cannot prevent your mother from allowing her feelings to affect her brains, at times; but I have a right to demand that your head should, under all circumstances, remain sound. Why did you not accept the invitation to the picnic?"

"It would have been an intolerable constraint upon me," said Laura.

"I understand," replied Mr. Hummel. "I am not much in favor of princes, but not much against them either. I cannot discover that they have greater heads than other people. I am therefore obliged to consider them simply as ordinary customers who are not always number one, neither do they always wear number one goods. Nevertheless, when a prince invites you, with other distinguished persons, to a respectable summer entertainment, and you refuse to go, I, as your father, ask you for the reason; and, between you and me, it shall now be no question of headache."

Laura perceived, from the expression of her father's countenance, that he had some other idea in his head.

"If you wish to know the truth, I will make no secret of it. I am not invited on my own account; for what do these people care about me? It is only as the appendage of our lodgers."

"You knew that when the invitation came, and yet you jumped for joy."

"The idea only occurred to me afterwards when—"

"When you learnt that the Doctor over there was not invited," completed Mr. Hummel. "Your mother is a very worthy woman, for whom I entertain the highest respect, but it sometimes happens that one can screw a secret out of her. When you thus ruminate over what neither your father nor the world should know, you should confide it to no one, either in our house or in any other."

"Very well," said Laura, with decision; "if you have discovered it, hear it now from me. I am a plebeian just as much as Fritz Hahn is; he has been in the society of those Court people more frequently than I; their taking no notice of him made it clear to me that they considered one who is his equal as a superfluous addition."

(To be continued.)



## BOOK REVIEWS.

DE LA CLASSIFICATION DES SCIENCES. ETUDE LOGIQUE. By Adrien Naville. Geneva & Basle: 1888. H. Georg. 1 fr., 50c.

The above is an interesting treatise of limited scope upon the important and fundamental question of the classification of the sciences. Mr. Adrien Naville is professor at the Academy of Neuchâtel and is known, apart from other publications, as the author of "*Julien l'Apostat et sa Philosophie du Polythéisme*." Mr. Naville finds the starting-point of a logical classification in these three natural groups: (1) The sciences of the *real*, or sciences of things that exist—History; (2) The sciences of the necessary conditions of the *possible*, or the sciences of laws—Theoretics; (3) The sciences of the *ideal*, or the rules of activity. The successive treatment of each of these three subdivisions is marked by clearness, ease of development, and even a certain grace of literary execution. One finishes this little pamphlet of forty-six pages with the sense of having unconsciously experienced a clarification of ideas in its reading, and we regret that lack of space prevents us from entering into a critical discussion of Mr. Naville's analysis. We may recommend it to our readers as uniting the charm of lucid expression with the more solid merit of logical consistency.

HISTORY OF THE REFORMATION. By Philip Schaff, Professor of Church History in the Union Theological Seminary, New York. New York: 1888. Charles Scribner's Sons.

The author has done a meritorious work in presenting the History of the Reformation to American readers. He makes many investigations from German and other sources accessible, and his ideal enthusiasm for the subject adds a peculiar charm to the book. Prof. Schaff has gone to Europe repeatedly; he searched the libraries for information and visited the classical localities not only where Luther, Zwingli, Calvin, and Knox lived and preached, but also those places where their antagonists, the Pope Leo, Philip II, Ignatius, Loyola, etc., breathed the air of Romanism.

Prof. Schaff correctly says: "The Reformation of the sixteenth century is, next to the introduction of Christianity, the greatest event in history. It marks the end of the Middle Ages and the beginning of modern times. Starting from religion, it gave, directly or indirectly, a mighty impulse to every forward movement, and made Protestantism the chief propelling force in the history of modern civilization."

The Reformation is not only a restoration of early Christianity, but also the inauguration of modern Christianity. And the great movement is not yet closed. Prof. Schaff justly states that "*The Kultur-Kampf* is still going on." He recognizes that the nineteenth century is eminently (like the time preceding the Reformation) an age of discovery and invention, of enquiry and progress.

"And both then as now the enthusiasm for light and liberty takes two opposite directions, either towards skepticism and infidelity, or towards a revival of true religion from its primitive sources."

"The spirit," Prof. Schaff says, "and aim of evangelical Protestantism is best expressed by Paul in his anti-Judaistic Epistle to the Galatians: 'For freedom did Christ set us free; stand fast, therefore, and be not entangled again in a yoke of bondage.'"

We see the progress of the Reformation almost exclusively in this spirit of freedom. Not so our author; and it is here where we cannot follow, but must let him go his own paths. He sees little difference between Romanism and Orthodox Protestantism, and he is right. "What unites them is far deeper, stronger, and more important than what divides them \* \* \* and so the war between Protestantism and Romanism will ultimately pass away in God's own good time." Prof. Schaff is an Orthodox Protestant. He is broad, but not free from dogmatism. He says: "Facts must control dogmas, and not dogmas facts. Truth, the whole truth,

and nothing but the truth, is the aim of the historian; but truth should be told in love."

But nevertheless our author condemns "Rationalism" and seems to be in full sympathy with Luther's invectives against reason. "In his trials and temptations Luther clung all the more mightily to the Scriptures and to faith which believes against reason and hopes against hope. 'It is a quality of faith,' he says in the explanation of his favorite Epistle to the Galatians, 'that it wrings the neck of reason and strangles the beast, which else the whole world, with all creatures, could not strangle. But how? It holds to God's Word, and lets it be right and true, no matter how foolish and impossible it sounds. So did Abraham take his reason captive and slay it, inasmuch as he believed God's Word, wherein was promised him that from his unfruitful and as it were dead wife, Sarah, God would give him seed.'"

Luther called reason "the mistress of the devil," "the ugly devil's bride," "a poisonous beast with many dragon's heads," "God's bitterest enemy," and said "that reason has been and ought to have been drowned in baptism." We must add that Luther's vehement denunciations will be better understood if we consider how they had been provoked. Luther opposed the subjectivity of the *Bildertürmer*, *Schwärmgeister* and *Sacramentirer*, also that of the schoolmen and their Aristotelian subtleties. All these people relied upon reason or upon their own subjective conviction or inspiration. Luther's idea of Christian freedom was not at variance with obedience and objective order. Similarly, Kant's idea of autonomy and freedom of will is ultimately found identical with universal law in spite of all its objective reality and rigidity. Luther himself reasoned on the scriptures very freely, and his criticisms (notably interpretations) are often arbitrary. But he had no patience with men who as a matter of principle identified freedom and anarchy.

Our main objection to the author was stated to be his orthodox standpoint. This fact bears most unfavorably upon the presentation of the subject in that it weakens the scientific spirit of enquiry. He speaks of Reformatory Ages as being "ushered in by a providential concurrence of events and tendencies of thought." The historian has to trace the inner necessity of human development, and to attribute any great accomplishment or progress of humanity to "the design of Providence" must be characterized as an uncritical and unscientific standpoint. If the orthodox views of the author were less pronounced, his book would undoubtedly gain a much larger circle of readers.

P. C.

## NOTES.

Prof. Dr. Alfred Weber, the author of *Die Religion als Wille zum Ewigen Leben*, remarks, in a private letter, relative to the review of his pamphlet published in No. 54, of THE OPEN COURT, as follows:

"Regarding the wish expressed at the conclusion of your review, let me say that my pamphlet is intended as a purely psychological, and not as a metaphysical, study. The theologians and philosophers, who have broached their opinions in such profusion upon the 'Nature of Religion,' tell us, as a rule, what religion *should* be; I meant to tell simply what it *is*—the *real*, the existing religion. 'Our investigation has to do with *real* religion only,' are the express words I use on page 22. But, of course, I intimate thereby—a fact that is perhaps sufficiently known to you through former publications and disquisitions, and which constitutes the fundamental idea of my treatise entitled *L'Economie du Salut, Etude sur le Dogme dans ses Rapports avec la Morale*—that for me, too, an *ideal* 'religion' exists; the religion that the Christian aspires to, but never fully or completely reaches on this side of the threshold of death (*ibid.*). In the place of *Horror* it puts (in so far as it is sentiment) *Amor*; in the place of dualism (in so far as it is a conception), monism; in the place of a priesthood (in so far as it is a cult), the practice of Samaritan precepts.



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## Recent Contributions to 'The Open Court.'

PROF. WILLIAM D. GUNNING.

A Memorial Address by Frederic May Holland.....In No. 61.

Prof. William D. Gunning died at Greeley, Col., on the 8th of March, 1888. His active and exemplary career of sixty years was devoted to the advancement of scientific thought, and marked by an uncompromising loyalty to truth. The memorial address, by Mr. Frederic May Holland, is a just and fitting tribute to a noble life.

## THE PSYCHIC LIFE OF MICRO-ORGANISMS.

ALFRED BINET. In Nos. 49, 50, 51, 55, 56 and 57.

In the whole domain of Natural Science no field of investigation affords such a fascinating complexity of phenomena or such a varied wealth of vitality as the Kingdom of the Protozoans, the minute organisms revealed to us by the aid of the microscope. They inhabit the water we drink, the food we eat, the air we breathe. They live as parasites in the intestines and flesh of animals, and in plants; aiding or injuring their hosts, as the case may be. They lie dormant in a particle of dust, a legion in number. They roam free and unconfined in a drop of water, to them a world. Infinite in number, variety of size and manner of appearance, the same beings that the unaided vision of man cannot alone discover, form no unimportant factor in the construction of continents and in the configuration of the surface of the globe. They are the simplest known forms of life, and every contribution that throws light upon their mode of existence, cannot fail to be of transcendent interest to biologist and scientists in general.

M. Alfred Binet, the collaborator of Ribot and Féré, and one of the most eminent representatives of the French School of Psychology, has presented in this series of articles the results of the most recent investigation into this department of Life. Every phenomenon that the improved methods of microscopic research have shown to be indicative of an exercise of intelligence, will, or feeling in these minute beings is fully discussed and analyzed. M. Binet has added much by these articles to the psychology of the microscopic world; he has opposed many theories, confirmed others, and advanced many conclusions of his own. The correspondence elicited in France by these essays will be published at the conclusion of the series.

The articles have been translated from the *Revue Philosophique*, and the original cuts procured from the publishers.

## THE PROBLEM OF CAUSALITY.

In No. 55 is an editorial discussion of The Problem of Causality. The surpassing importance of this subject renders a clear conception of it absolutely indispensable to correct observation and sound reasoning. Despite this the problem has been unbecomingly neglected, and this neglect has given rise to innumerable errors and to an astounding lack of lucidity in scientific discussion.

The problem is treated with clearness and precision; simplicity of presentation being especially aimed at.

## THE FOUNDING OF OUR RELIGIOUS FREEDOM.

By MONDREU D. CONWAY. In No. 52 and 53.

Mr. Conway here discusses a subject that the present Centenary Era renders timely and interesting. The glorious immunities of civil liberty that our ancestors wrested from the grasp of feudal traditions and confirmed by constitutional bulwarks, were attended perhaps with greater brilliancy and marked by greater effort of acquisition; but, from the standpoint of individual freedom, liberty of conscience and the principle of religious toleration rank not below them in importance. Mr.

Conway's story is drawn from unpublished sources, from private manuscripts, and is in the main the result of original research. The state of the Church of England in Virginia, the apostolate of Samuel Davies, the religious tendencies of colonial society, the religious profession of men to become so famous in history, of Randolph, of Patrick Henry, of Madison, and of Jefferson—are all described and discussed, and the manner told in which both the institutions and the men of that era affected and influenced the founding of religious freedom in the United States. The new light which Mr. Conway's research throws upon this important chapter of American history, will be welcomed by all.

## THE ANIMAL SOUL AND THE HUMAN SOUL.

CARUS STERNER.....In Nos. 37, 41, and 43.

An essay full of fine thought and psychological depth. Carus Sterner well understands to follow a subject as historically developed in the realm of human opinion and as ultimately affected by the light of Modern Science. The question of the relation of the animal to the human soul has ever been of interest and in this essay we find it attractively yet accurately treated.

## PLANTATION FOLK-LORE.

L. J. VANCE.....In Nos. 47, 45, and 46.

Mr. Vance reviews and discusses the movement and widespread interest in popular tales which has produced the recent collections of Negro Myths by Joel Chandler Harris ("Uncle Remus") and Mr. Charles C. Jones. These tales form an important addition to the Folk-Lore of the New World, and Mr. Vance's review will be welcomed by all who wish to acquire a comprehensive estimate of the significance of these Myths to comparative literature and the science of comparative ethnology.

## REFLEX MOTIONS.

G. H. SCHNEIDER.....In No. 24.

G. H. Schneider's book, *Der Menschliche Wille*, is one of the most prominent delineations of modern psychological research. The essay on Reflex Motions is a translation of the basic chapter of Schneider's work. It contains the fundamental propositions of physiological psychology.

## FREE-WILL A MECHANICAL POSSIBILITY.

XENOS CLARK.....In No. 39.

Mr. Xenos Clark here presents in an interesting and attractive manner certain scientific analogies bearing upon Free-Will and Determinism. A novel and ingenious application is here made of the theory of linkages and link-work which of late has so interested mathematicians and been developed with such striking success by Prof. Sylvester. The article will be found to be unusually suggestive, although it is not in concord with THE OPEN COURT, which, in an editorial of No. 33, admits the truth of both *Free-Will* and *Determinism*.

## THE INDIVIDUALITY OF ATOMS AND MOLECULES.

REV. H. H. HIGGINS M. A. In Nos. 41 and 42.

Mr. Higgins says: "Evolutionists have to choose between discontinuity and the recognition of a universal principle of life, which may be regarded not as mechanical, but as inherent in the primordial atom." This idea underlies the theory of J. G. Vogt also. But Mr. Higgins attributes an individual *bios*, or life-unit, to every atom, while Vogt postulates a continuous, contractile, elastic world-substance, wherein the atoms of modern chemistry are made to be centres of condensation. Mr. Higgins hypothesis endows each atom with an idiosyncrasy which comprehends all that determines its individuality and makes it what it is. The essay should be read in connection with a letter in No. 43 upon "The Origin of Life and the Problem of Memory."



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presented in its various scientific aspects and in its deep significance to intellectual and emotional life. If fully grasped, it will be found to satisfy the yearnings of the heart as well as the requirements of the intellect.

Facts which seem to bear unfavorably on this solution of the religious problem are not shunned, but openly faced. Criticisms have been welcome, and will always receive due attention. The severest criticism, we trust, will serve only to elucidate the truth of the main idea propounded in *THE OPEN COURT*.

*THE OPEN COURT* holds that Religion and Science, rightly understood, do not contradict each other. The apparent divergencies have arisen from the false dualistic conceptions of world and life; and the Conciliation of Religion with Science is to be found in *Monism*—to present and defend which is the main object of *THE OPEN COURT*.

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CHICAGO, ILL.

## RECENT CONTRIBUTIONS TO "THE OPEN COURT."

### THE PSYCHIC LIFE OF MICRO-ORGANISMS.

ALFRED BINET. In Nos. 49, 50, 51, 55, 56, 57, and 58.

Mr. Alfred Binet, the collaborator of Ribot and Féré, and one of the most eminent representatives of the French School of Psychology, has presented in this series of articles the results of the most recent investigation into microscopic life. Every phenomenon that the improved methods of microscopic research have shown to be indicative of an exercise of intelligence, will, or feeling, in proto-organisms is fully discussed and analyzed. M. Binet has added much by these articles to the psychology of the microscopic world; he has opposed many theories, confirmed others, and advanced many conclusions of his own. The correspondence elicited in France by these essays is published in No. 67.

The essays will be published during the month of January, 1899, in book-form; parts that have not appeared in *THE OPEN COURT*, with new explanatory cuts, and a preface especially written by the author, will be added.

### TRANSFORMATION AND ADAPTATION IN SCIENTIFIC THOUGHT.

PROF. ERNST MACH. .... In Nos. 46 and 48.

Ernst Mach, Professor of Mechanics at the University of Prague, author of several works explanatory of the history and philosophy of mechanics, and the first authority in his branch, discusses in this essay an idea that conditions the development of modern scientific thought. The article was delivered as an address by Prof. Mach upon assuming the rectorate of the University of Prague.

### ORIGIN OF REASON.

LUDWIG NOIRÉ. .... In No. 33.

An essay of great importance; will greatly help to explain the views of Max Müller. The same number contains an editorial upon *Monism* and Philosophy, in which is discussed the Identity of Language and Thought, the theories of Noiré and Müller, and the proof with which modern philology has corroborated the monistic conception.

### THE HIBBERT LECTURES AND THE GAULISH PANTHEON.

By S. ARTHUR STRONG. .... In No. 63.

An instructive essay upon the purposes of the Hibbert Foundation, with a review of the recent lectures by Prof. John Rhys upon the religion of the ancient Celts. The original investigations of Prof. Rhys have thrown a new and welcome light upon the forms of belief in ancient Gaul, Wales, and Ireland, and they are regarded as a monumental work in the province of philological archaeology.

### CHRISTIANITY AND RELIGION.

By DR. GUSTAV CARUS. .... In No. 70.

Dr. Gustav Carus, Superintendent General of the State Church of Eastern Prussia and one of the most prominent clergymen of Germany, criticizes the work of *THE OPEN COURT*. The principles of the monistic and melioristic philosophy are discussed in their relation to Science and Christianity. The criticism is pervaded by an earnest, thoughtful, and religious spirit.

In the same number, under the title "The Religious Character of *Monism*," appears an editorial

reply to the above criticism. The position of *THE OPEN COURT* is defended, its tenets justified, and its principles more fully explained.

### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.

FELIX L. OSWALD, M. D. In Nos. 27, 29, 31, 33, 34, 36, 38, 40, 42, 44, 46, 48, 51, 53 and 57.

The Science of the thousand-fold moral effects of physical causes is still a sealed book to a large plurality of our fellow-men. The ethics we have inherited is biased by the tenets of an anti-physical and anti-natural philosophy, and the tendency of the latter has ever been to sanction and exaggerate the physical effects of moral causes. Dr. Oswald says: "Our entire system of moral education needs a thorough revision, and the success of urgent social and ethical reforms depends on the radical reconstruction of moral philosophy on a basis of natural science." The subject is treated in the graphic manner which has ever characterized Dr. Oswald's contributions to the Literature of Natural History and Anthropology. It is marked by the usual wealth of illustration and abounds in felicitous and pertinent citations of historical and natural evidence.

### THE UNIVERSAL FAITH.

By T. R. WARREN. .... In No. 71.

### THE FOUNDER OF THE NINETEENTH CENTURY CLUB.

By MORGUE D. CONWAY. .... In No. 71.

Two important and interesting articles upon the life, work, and influence of the late Mr. Courtland Palmer, of New York, the liberal and high-minded founder of The Nineteenth Century Club.



# THE OPEN COURT.

## WHAT MIND IS.

PROF. E. D. COPE.....In No. 40.

## THE NATURE OF MIND.

By THE EDITOR OF THE OPEN COURT. No. 40  
Professor Cope gives in clear and comprehensive outlines his view of mind; he opposes Materialism and Dualism, stating that "the situation is monistic." However, "as the amount of thought can most assuredly be measured, but the quality of thought can not," the eminent American scientist concludes that "consciousness has a field of its own where it ranges free from the bonds of energy." The directive element (will and mind) is qualitative not quantitative and controls the movements of the non-mental environment. "This statement may be called occultism," Prof. Cope adds, "and I suppose justly. But such is the fact."

In opposition to Prof. Cope, the Editor explains his view of mind. The qualitative faculties are a matter of form. Form is the essential characteristic of mind, and a superior mind indicates a superior form of brain structure. Form is an abstraction from reality and has by itself no efficacy. M. Ribot, the founder of the French school of experimental psychology, is quoted in support of the fact that consciousness by itself is not an effective factor in the motion of our limbs. "The consciousness of mental states may be indispensable for a proper direction of our will, but it does not possess motive power. Prof. Cope's view is considered inconsistent because leading to dualistic statements and to occultism."

A letter from Prof. E. D. Cope, which has reference to this discussion, is published in No. 42.

## FREE-WILL A MECHANICAL POSSIBILITY.

XENOS CLARK.....In No. 39.  
Mr. Xenos Clark here presents in an interesting and attractive manner certain scientific analogies bearing upon Free-Will and Determinism. A novel and ingenious application is here made of the theory of linkages and link-work which of late has so interested mathematicians and been developed with such striking success by Prof. Sylvester. The article will be found to be unusually suggestive, although it is not in concord with *The Open Court*, which, in an editorial of No. 33, admits the truth of both *Free-Will* and *Determinism*.

## THE FUNDAMENTAL PROPERTIES OF MATTER.

J. G. VOGT.....In Nos. 29, 31, and 34.

To the kinetic conception of the world's mechanism Vogt opposes his hypothesis of a continuous world-substance completely filling space and whose sole manifestation of power consists in contraction or condensation. He claims that the kinetic or mechanical theory, which explains organized and spiritual phenomena from inelastic atoms and a purposeless force, is untenable; and that pseudo-morphism, which transforms the most complex conditions and processes of physical life into the elementary substance itself, involves the fallacy of idealism and dualism. As opposed to both views Vogt propounds his conception, which he calls Monism of Reality. He attributes to matter two fundamental properties, motion and sensibility, and deduces from these elementary properties the higher phenomena of intellectual life.

## ETHICS AND PUBLIC LIFE.

W. M. SALTER.....In No. 45.

The well-known lecturer of the Society for Ethical Culture in Chicago bravely probes the wounds of our public life and shows his patriotism by boldly denouncing the evils and wrongs of American politics. But he is no pessimist; he does not despair of improvement and progress. He knows very well that men "of Roman virtue" still exist. Mr. Salter wants to elevate our conception of politics, so that the best men in the community would lose their repugnance to public life; that they would enter it once more to make it great and illustrious.

## THE PROBLEM OF CAUSALITY.

In No. 35 is an editorial discussion of The Problem of Causality. The surpassing importance of this subject renders a clear conception of it absolutely indispensable to correct observation and sound reasoning. Despite this the problem has been unbekomingly neglected, and this neglect has given rise to innumerable errors and to an astounding lack of lucidity in scientific discussion. The problem is treated with clearness and precision; simplicity of presentation being especially aimed at.

The comments and discussions elicited by the article on "Causality" will be found to be especially instructive and elucidative. In Nos. 58, 59, and 60, Mr. William M. Salter advances a series of critical remarks, which are replied to in the same numbers by the articles, "Causes and Natural Laws" (No. 50), "Is There Anything Unknowable in Causation" (No. 59), "Is Nature Alive," and "The Stone's Fall" (No. 60). In No. 58, Mr. M. A. Griffen writes a letter upon the same subject; in No. 60, Dr. Edward Brooks, of Philadelphia comments upon the standpoint taken: all of which are accompanied by editorial comments.

## REMINISCENCES OF MR. ALCOTT'S CONVERSATIONS.

MRS. EDNAH D. CHENEY.....In Nos. 49 and 50.

In Nos. 49 and 50 *THE OPEN COURT* publishes a paper upon Mr. Alcott's conversations, read by Mrs. Ednah D. Cheney before the Memorial Meeting of the Concord School of Philosophy. Mrs. Cheney's recollections of Mr. Alcott lead us back as far as the year 1840. The reminiscences cover almost a half a century of Mr. Alcott's intellectual life. Abstracts are given of his conversations, incidents described in which noted contemporaries figured, and anecdotes told illustrative of Mr. Alcott's life and thought.

Wheelbarrow, in No. 52, contributes an additional reminiscence of this "amiable philosopher and venerable man."

## DETERMINISM VERSUS INDETERMINISM.

PROF. GEORG VON GIZECKY.....In Nos. 25 and 26.

Georg von Gizecky is Professor of Philosophy at the University of Berlin. His name is well known beyond the boundary of his country. The problem of the Freedom of the Will has perhaps never been treated in a clearer and more forcible manner. Contributions on the same subject have been published from E. P. Powell and Xenos Clark.

## THE BASIS OF ETHICS.

### THE SOUL.

### FREE TRADE AND PROTECTION.

By EDWARD C. HEGELER.....In Nos. 1, 15, and 62.

## THE FIELD-INGERSOLL CONTROVERSY

An editorial discussion of the Field-Ingersoll Controversy and of Mr. Gladstone's Remarks upon the same, will be found in Nos. 43 and 44. The questions and issues involved are treated from an independent and impartial standpoint. The inefficacy of Agnosticism to approach a solution of the religious problem is shown; Agnosticism being but a negative view of the world. The true position and significance of both parties in the development of the religious idea are pointed out and each is recognized as important and necessary to the ultimate synthesis of religious truth, a religion which will in due time be good in all.

## ECONOMIC CONFERENCES.

WHEELBARROW.....In Nos. 37, 40, and 47.

The Economic Conferences of Chicago may be hailed as a significant indication of a breach in the barrier between Labor and Capital. The conferences have served as a medium for the open exchange of opinion, where both sides are fairly represented. Wheelbarrow's criticisms are acute and pithy, and merit a careful perusal. The author unites Old Saxon simplicity, sincerity of heart, the truthfulness of honesty and warm sympathy for justice and right.

## THE ANIMAL SOUL AND THE HUMAN SOUL.

CARUS STERNER.....In Nos. 37, 41, and 43.

An essay full of fine thought and psychological depth. Carus Sterner well understands to follow a subject as historically developed in the realm of human opinion and as ultimately affected by the light of Modern Science. The question of the relation of the animal to the human soul has ever been of interest and in this essay we find it attractively yet accurately treated.

## THE SPIRITUALIST'S CONFESSION.

By MONCURE D. CONWAY.....In No. 65.

An interesting article upon the recent confession of the Fox Sisters at the Academy of Music, N. Y., with a short historical sketch of the Spiritualist movement in America and England.

## PLANTATION FOLK-LORE.

L. J. VANCE.....In Nos. 41, 45, and 46.

Mr. Vance reviews and discusses the movement and widespread interest in popular tales which has produced the recent collections of Negro Myths by Joel Chandler Harris ("Uncle Remus") and Mr. Charles C. Jones. These tales form an important addition to the Folk-Lore of the New World, and Mr. Vance's review will be welcomed by all who wish to acquire a comprehensive estimate of the significance of these Myths to comparative literature and the science of comparative ethnology.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 62. (VOL. II.—36.)

CHICAGO, NOVEMBER 1, 1888.

Two Dollars per Year  
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## FREE TRADE OR PROTECTION.

BY EDWARD C. HEGELER.

Discussions of political questions have hitherto not been introduced into our journal; but it is obvious that the burning questions of the day must be judged from ethical principles also. It would be wrong not to declare openly what appears to be the right solution of the most practical and important affairs of public life.

Looking at the question of Free Trade or Protection from the religious or humanitarian standpoint, I think that all the different religious creeds agree in this, that the ideal of our efforts must be a higher humanity.

What are higher men?—Men more moral, in the sense generally used, more intelligent and efficient, more skillful in every respect, more civilized, more able in the pursuits of peace as well as war.

How do we produce such men? Shall we realize our ideal by protection, by restricting other nations from competing with us, by taking advantage of temporary international circumstances? I think not. Experience shows that competition is the foundation of progress, including competition in labor, which, however, is kept in bounds by the laborers' striking in order to preserve a certain standard of living.

From this point of view we must give equal chances to all the people of the earth, demanding the same from them in return. When, in 1858, we sent Commodore Perry's fleet to Japan, to open commerce with that country, which from necessity was done with arms in hand, we told the Japanese: "You have no right to exclude us from the soil you hold, you must allow interchange of products, that is commerce, with us. But we will give you an equal chance with us." The principle of this policy was truly ethical. Our people here were benefited thereby, and more so the Japanese, who, after a long protection-stagnation, have entered on a new era of progress.

Though we may now be ahead of the European nations in many industrial pursuits, we must in time linger behind them through the permanent use of the infant's nursing bottle of protection. If we permanently shut ourselves up by a Chinese wall of protection, would

not the European nations, if by and by they settle their internal disputes, have the right to speak to us, as we did to the Japanese? And shall we wait for such an admonition?

I expect that our descendants will then stand up and defend the national honor against such demands. But we will have to fight for a cause that is wrong from the standpoint of a higher humanity. And a constant preparation for such emergencies will make our country a military camp, as is Europe, with all its poverty-producing effects.

Protection is wrong in the humanitarian sense and leads to hostile feelings and war in place of good will and peaceable interchange. The civilized people of the world, in the interest of a higher humanity, ought to compromise their minor differences and with united efforts fill the earth with civilized men.

But I hear the question: "Must we not protect our workmen from European pauper labor?" I ask, is it right that we call and treat as paupers the workmen of those nations whose descendants we are, the native Americans as well as those of foreign birth? And this we are brought to by the protective policy. This policy is wrong by the general ethical law to which philosophy leads, and which is: "Aspire to a higher humanity." We are here in full concord with the old religions. The fourth commandment of the Mosaic law says: "Honor thy father and thy mother that thy days may be prolonged and that it may go well with thee in the land which the Lord thy God giveth thee." And the New Testament says: "Thou shalt love thy neighbor as thyself." These teachings should not only refer to individuals, but afford the soundest foundation also for the international morals of our nation toward our mother-countries. My answer to the above question is: "Our workmen, if we select the right kind of labor, whereto we are most favored by nature, will not be degraded by the labor of the European workman with his economical habits; on the contrary, they will have the benefit therefrom."

Entering now upon the patriotic side of the question, it is our duty, to place the welfare of our whole nation above that of our narrower interests.

Recognizing the wholesome influence of a free



competition with others, we should, from an ethical point of view, consider as beneficial progress every step that brings us (without the recklessness of too sudden changes) nearer to the state of free-trade. Having been requested by the *La Salle Democrat-Press* to explain my views on the tariff question, I have stated them in a letter to the editor of that journal. A copy of the letter is here presented to the readers of THE OPEN COURT.

*Editor LaSalle Democrat-Press:—*

Upon your invitation to give you my views on the issues of the political campaign, I write what follows.

The Democratic party enters upon a policy of reduction of taxes on imports, alleging that the money which is not needed for the economical administration of the government should remain in the pockets of the people. President Cleveland says that too much money in a government's hands has a demoralizing effect upon it.

The Republican party opposes that policy. They will continue to collect the taxes and spend the surplus for unascertained purposes. They say that the reduction of taxes on imports will put our workingmen on a footing with European workingmen—exposing them, it is said, to competition with "European pauper labor."

Let me briefly express my opinion as to the effects of a general reduction of the tariff upon the industries of our country.

*Effects on the Non-Protected Industries.*—The farmer, after a while, will thereby get a higher price for his products—his corn, his cattle, and his hogs. Why? In consequence of a reduction of the cost of transportation East. The reduction of the cost of transportation will follow upon a reduction in the cost of steel rails and railroad-material. In time, too, if railroad employees should be willing to work for less money, consequent upon the reduction of living expenses, that also would help to reduce the cost of transportation.

Such willingness, however, on the part of railroad employees to accept less wages is not to be looked for very soon, for the increased prosperity of the farming interest would be an inducement to abandon railroad-ing for farming, or for such other occupations as directly share the prosperity of the farming interest and together with that are only injured by the tariff. Such occupations are those of the blacksmith, brick-maker, butcher, brewer, carpenter, carriage-maker, clock-maker, coal-miner, cooper, day-laborer, machinist, mason, painter, printer, stone-cutter, teamster, tinner, watch-maker, wheelwright, and nearly every calling pursued throughout the land. And not only will the prosperity of agriculture prevent the lowering of wages

of railroad men by offering them better advantages, but even the railroad interest itself will be able now to do the same. Railroad-ing will directly share the prosperity of the farming interest; as there will be more goods to transport. There will follow an increased demand for new railroads.

Lower wages can only come as the result of a large immigration drawn hither by the offer of plenty of work, together with a lower expense of living than at present obtains. Wages in Europe are at present higher than they formerly were; and besides there are there, as here, organizations for maintaining and increasing wages. European workmen, no doubt, could now easily raise sufficient funds to enable them to come over here in much larger numbers than they actually now do, if they saw a reasonable certainty of improving their condition thereby.

The present difference between American wages and European wages *must* be accompanied by a definite outlook for steady work, as an inducement; otherwise the risk of emigrating will not be run. In the old land workmen can procure many necessities of life, luxuries, and higher enjoyments, at a much lower cost than they can be got here. And then, man does not so easily separate from his native land and all that is dear to him therein, unless with the prospect of substantially improving his condition.

So I expect that wages in general would not be lowered even by a large reduction of the tariff for a good while; and certainly not the wages of those employed in industries that, practically, are not now protected: and the majority of industries are not protected, although their products may be on the tariff-list.

In farming and the non-protected industries I am therefore confident that a reduction of tariff will be a substantial gain to both employers and employed.

I have already shown how much the reduction of the tariff would benefit the farmer in the sale of his products. But his gain would be equally as much, if not more, in what he buys. And this advantage the people generally would have. The farmer would be able to buy most things that he needs at a much lower rate—most things except labor, and labor can be made cheaper only by a large immigration drawn hither by the workingman's condition being better here than it now is.

The largest industry of our neighborhood, next to farming,—the coal-mining industry,—has no benefit from the tariff. Coal will never be brought from Europe to the West. The cost of transportation of coal from the mines to the consumer, as well as the cost of tools, machinery, and lumber, is increased by the tariff, and so are the living expenses of all engaged in the mines. The same is true also of the plow-factory and the clock-factory.



*Effects on the Protected Industries.*—How is it with regard to our protected industries, locally our zinc and our glass manufactures?

#### GLASS-MANUFACTURE.

With the glass-making industry I am but little acquainted, but am under the impression that the individual interests of men specially skilled in glass-manufacture, for instance the glass-blowers, who are not likely to use their skill in other branches of industry, will suffer by the reduction of the tariff on glass. The business may, for a time, be depressed. But such a depression is likely to be only temporary, for, with the increase of the general prosperity of the country that must follow upon a reduction of the tariff, the demand for glass must become greater; so that our inland glass-works will be able to sell their products nearer home, while the foreign glass-works will have to pay the cost of transportation to their ports, the freight across the ocean, the insurance, the freight from our coast to the inland consumer, and also what remains of the tariff to meet the expenses of the government.

#### ZINC MANUFACTURE.

How is it then with regard to our zinc industry? The prices prevailing in the manufacture of zinc, have for a number of years been ruled by existing home competition, and fear of more competition. There are no trusts.

Those connected with the mining of zinc ore, namely, the miners, mine-operators, and mineral-land owners, all well know that the market price of the ore directly fluctuates with the prices of zinc. If the tariff on zinc is reduced, this reduction will fall altogether on the prices of zinc-ore, as it is not likely that the wages in zinc-manufacturing will decline, for a reason already given; namely, that the greater profits (consequent upon the reduction of the tariff) of such pursuits as now suffer by the tariff, will attract workingmen to those pursuits, and thereby prevent a fall of wages in protected industries.

Against this, the probable reduction of the cost of transportation of the zinc-ore from the mines to the smelting-works and the reduction in the cost of transportation of manufactured zinc to the East, will be somewhat of an offset.

Also, if an increase of the general prosperity of the country shall materially increase the inland consumption of zinc, the zinc mined and manufactured here will find its market inland. And supposing sooner or later a large reduction of the tariff, this inland market-price will be the price of foreign zinc, with the remaining duty and the cost of transportation from the coast to the interior added; assuming the coast-cities to be supplied with foreign zinc.

I conclude, therefore, that while the reduction of the tariff on zinc will fall on the price of zinc-ore, the

above-mentioned causes will, if not immediately, yet in the long run, make up a good part of the loss.

What will be the effect of lowering the prices of zinc-ore? The quantity of zinc-ore mined must, for a time, be expected to be materially reduced, as it will not pay to run inferior mines, and as miners and their help are not likely to work for lower wages, with the increased profitableness of other industries, such as farming, coal-mining, gold and silver-mining, all of which suffer by the tariff.

As a consequence of the decreased supply of zinc-ore a portion of the zinc-smelting works, or parts of such works, would be compelled to remain idle for longer periods than is now the case; but this would be only transient, for, as already explained, the increased inland demand for zinc would again raise its price.

#### WHO ARE THE LOSERS?

In view of a general and material reduction of the tariff, who are the real losers (if there are any such)? These, in my opinion, are the employing manufacturer, the mine owner, and particularly the owner of the mineral land, together with such workmen as will, for a time, suffer on account of the temporary idleness of zinc-smelting works, or parts thereof, and are therefore compelled to seek for other work, of which, it is likely, there will be plenty.

In the end also, the capitalistic part of the zinc-industry, that of the mine-owner and of the manufacturer, will be put on a healthier basis than it now occupies. The capitalist now hesitates to make substantial improvements, as he fears that the present high tariffs can only last until the farming and non-protected industries find out that the protected industries are a burden to them.

What I have here argued has reference to a large reduction of the tariff, not the beginning of a reduction, as proposed in the Mills Bill. Instead of opposing a moderate reduction of the tariff, such as is proposed by this bill, we—I mean employers and employed, engaged in a protected industry—ought to be thankful, if the reducing of the tariff is done gradually; unless we are sooner or later to draw down upon us the wrath of the non-protected industries, when the latter have found out more definitely than at present, that for years they have been misled—by many well-meaning men, I allow.

#### THE ETHICAL ARGUMENT.

America is a land favored by nature with a fertile soil, under a temperate climate. A century ago this land was largely the hunting-ground of the wild Indian, and two centuries ago it was so almost altogether. Within these periods the workingmen of Europe came over and settled here, leaving behind them brothers, kindred, and friends in their overpopulated



native land. The descendants of European workingmen who came over fifty years or more ago, are now the native Americans of to-day. We workingmen of the West, to a large extent, came over here ourselves, leaving the land that gave birth to the kindred and friends we left behind us as well as our own selves. Is it right then, that we should say to them: We must be protected from your *pauper* labor! Is not the right way this? That we in our land carry on, in the first place, those pursuits to which nature offers the most favorable opportunities,—which are primarily the production of food,—and exchange that with them for the products of their toil, and so benefit them as well as our own people.

Shall we, through protection, bring up a race of industrial weaklings, fearing an open competition on our own soil with European workingmen, who pay higher prices than we do for food, and who have to pay also for sending over here the products of their toil?

The reader of my argument need not be told that I shall vote for Grover Cleveland and Allen G. Thurman, who, I may say, are, both of them, men fit to be entrusted with the responsibilities of high offices. And for a like reason I shall vote for General Palmer, of whose character, tested ability, ripened and far-sighted views, I hold the highest opinion.

Respectfully yours,

*Edward C. Hegeler.*

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M.D.  
*Part XVI.*

#### SOIL AND CLIMATE. (Continued.)

The Unity of Nature, in the manifestations of her highest and lowest laws, is strikingly illustrated in the analogies of human and animal biology. Naturalists have demonstrated the agency of a chief factor in the progress of evolution from the unmistakable contrasts of continental and insular forms of organic life, and a curiously similar kind of physical influences can be traced in the contrasting types of national development. Several island regions of this planet seem to have tarried behind the general advance of organic evolution. They exhibit a fauna and flora all of their own, as compared with the living forms found in less isolated parts of the habitable globe, but which at the same time bear a remarkable resemblance to the plants and animals of earlier geological periods. Madagascar, for instance, with its vast extent of tropical forests, contains not a single species of monkeys, no kind of antelope, no elephants and giraffes, not even a squirrel, but not less than thirty-five different species of lemurs or night-apes, five peculiar varieties of

carnivora and three species of insectivorous mammals, all of which have become extinct on the main-land of Africa, where their ancestors were ages ago superseded by other and generally more highly developed species of kindred animals.

For undoubtedly similar reasons the superstitions of primitive social institutions of former centuries have held their own among isolated nations, dwelling, as it were, at a distance from the highways of international commerce and less apt to profit by the experience of their civilized neighbors. In Europe, for instance, the stream of international travel reaches its highest water-mark in western Germany, its lowest probably in eastern Portugal. Aside from questions of political and industrial development, we accordingly find in the intellectual progress of those regions a contrast representing a difference of about seven centuries. For one traveler who carried a leaven of skepticism and helpful suggestions to the Portuguese province of Trás-os-Montes, fifty thousand at least visited Alsace and the valleys of the lower Main and Rhine, and the result is seen in the mental status of the Rhineland and East-Portuguese varieties of the Caucasian Race. Within a hundred miles of Frankfort on the Main, a professed believer in witchcraft could not escape the lunatic asylum for twenty-four hours. An attempt to enforce the Sabbath laws of the Scotch kirk-despots would result in an immediate revolution. A papal interdict of any special book would increase its sale about a thousand per cent. Hereditary rank has so utterly ceased to constitute a claim to social prestige that counts and barons cannot hope to assert their prerogatives outside of the army, and have come to consider their titles a positive disadvantage in the competition of intellectual or political life. Even in the smaller communities the expenses of sanitary improvements are defrayed by voluntary contributions. Every school has a free gymnasium and a free circulating library. Freethought is no longer an obstacle to official preferment, and religious persecution would promptly recoil upon the heads of its instigators. Inhumanity is not tolerated even in prisons; cruelty to animals cannot be openly practiced with impunity. Landed proprietors vie in extending the culture of forest-trees, and the woods of the highland districts are protected by the vigilance of special government officials. Attendance at school increases, attendance at mythological establishments decreases from year to year.

An analogous change is going on in eastern Portugal. The Cantabrian Mountains have not wholly barred out the influence of European civilization, and the public burning of a freethinker would probably prevent the further promotion, and might lead to the enforced resignation, of the responsible officials. The number of schools has increased, but so slowly that in

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the district of Braganza (the eastern half of Trás-os-Montes) only about three persons in a hundred *can* read and write, and hardly three in a thousand *do* read such things as newspapers and secular books. A newspaper or book denounced by the clergy would not find one reader among half a million of natives. The belief in witchcraft, amulets, miraculous shrines, and health-restoring relics, is still all but universal. At a word from the leader of a gang of stall-fed monks, a spectator who should refuse to kneel at the approach of their procession would probably be mobbed on the spot. Ecclesiastic drones treat a working man with an insolence equalled only by their crawling submission to the tyranny of their clerical superiors. "Noblemen," too, still abuse their privileges for every sort of ignoble chicanery. The reckless destruction of forests has resulted in droughts and other consequences which the starving rustics seek to avert by prayer-meetings. Epidemics are made a pretext for clerical extortions that often reduce whole families to the alternative of mendicancy or starvation. Disrespect to the person of an ecclesiastic blood-sucker is punished with prompt and exemplary severity, but extreme cruelty to animals (especially beasts of burden) is condoned as a trifling secular indiscretion. Industry is crushingly taxed to support a horde of crapulent mythology-mongers; in short, the country groans under exactly the same subordination of human to clerical interests which blighted the prosperity of the West-German bishoprics about the end of the thirteenth century.

Climatic influences have only a subordinate share in the causation of such results. In a warmer climate than that of mountain-girt Braganza, the city of Barcelona abounds with free-thinkers, religious and political protestants, flourishing schools, flourishing markets and industries, and can boast not less than twenty-eight well-supported periodicals and numerous large private and public libraries. The climates of North-Scotland and South-England represent very nearly the thermal difference of northern France and southern Spain, yet the isolated kirk-slave of Perth and Aberdeen will meekly submit to the insolence of a clerical bully who in railway-blest Kent would be kennelled like a troublesome dog. International Buda-Pesth, with its belt of pleasure resorts and elegant country-seats, is an eastern Paris, while three hundred miles further north the Carpathian highlands shelter the superstitions of the darkest ages. International travel has carried rationalism to the poorest villages of the Swiss highlands, while under exactly the same latitude and with the same conditions of soil and climate the solitude of Austrian Alpenland has made its hamlets as many strongholds of bigotry.

The highways of commerce have always favored

the progress of culture, and the omission of that factor of intellectual development has misled the historian of civilization into all sorts of singular sophisms. Fertility of soil and a genial climate, according to Henry Buckle's theory of social development, will insure an early advance from barbarism to industry and social order: hence the early civilization of Egypt and Asia Minor, and the tardiness of progress in arid Araby and frozen Scythia. In North America, argues the learned historian, there are large rivers on the east, but not a sufficiency of sun-heat, while on the west-coast, where warmth abounds, there is a deficiency of moisture. Hence the universal prevalence of barbarism, in the vast area north of Mexico. Previous to the arrival of Columbus and De Soto the territory now comprising the United States did not contain a single settlement deserving the name of a town. Heat without moisture on the west-coast and moisture without heat on the Atlantic Slope did not favor the development of civilization. But what about the well-watered coastlands of Oregon and northern California, with their more than Italian mildness of climate, we might ask, and what of Georgia, Alabama, Mississippi, West Tennessee and the Carolinas, where an abundance of warmth and moisture and an exuberant fertility of soil were for ages found compatible with a state of absolute barbarism?

The only logical explanation is the remoteness of those regions from the highways of international commerce. With an abundance of game and spontaneous food-crops (berries, wild chestnuts, wild grapes, etc.), and an almost perennial summer, the wild hunter of the southern Alleghenies could satisfy all his wants within a few dozen miles of his native wigwam, and felt neither the necessity nor the inclination to extend his rambles beyond the watershed of his native highlands. Strangers were dreaded as rival hunters. Dietetic fastidiousness and a desire for the products of foreign industry were discountenanced as effeminating vices.

In Mexico, on the other hand, perennial comfort could be secured only by an interchange of the commodities peculiar to the mild summers of the central plateau and the mild winters of the coast plain. After the middle of April the *tierra caliente*, or "hot-land," of the alluvial vega begins to develop a surplus of warmth and insect-life hardly compatible even with the most modest ideas of a paradise. Hundreds of Aztec patricians who had their winter-homes on the Gulf coast, spent their summers in the Sierra, and returned about the end of October when the *tierra fria*, the "frost-land," begins to illustrate the meaning of its name by frequent snow-storms. Fruit and fish were sent from the coast to the highlands; game and pressed snow from the highlands to the coast, which was also visited by Nicaragua slave-dealers and by refugees



from the arms of the warlike Caribs. The slavish character of the natives was incompatible with the development of true civilization: still, in arts, industry and knowledge the Aztecs stood above the Cherokees as the Cherokees ranked above a troop of Abyssinian mountain-baboons.

In South America, too, cities were found only in the neighborhood of the sea—the natural highway of primitive nations not hampered by the jungles of pestilential coast-swamps. Together with venomous serpents and blood-sucking insects, such swamps in the lowlands of the equatorial regions make Nature, in the exuberance of her untamed energy, a decided overmatch for the strength of man. In Brazil and Guiana, the rank luxuriance of vegetation more than defied the subjugating efforts of the primitive forest-nomads who may have roamed the valley of the Amazon for countless centuries; for in the Indian Ocean, too, and within range of a short voyage from the supposed birthland of the human race, two mighty islands, exceeding in their aggregate area all the territories of the Austrian Empire, have preserved the wild freedom of their primeval forests as successfully as the loneliest river-swamps of the Orinoco.

The caprice of despots has occasionally diverted the stream of traffic from its natural highways to arbitrary centres of civilization, as in Northern Russia and in the steppes of Central Asia. Soon after the downfall of the protecting dynasty, such regions of factitious culture are, however, apt to relapse into their primeval desolation, while natural centres of culture seem often almost destruction-proof and civilize successive hordes of barbarian invaders. Constantinople, for instance, has owned the rule of eastern and western savages, of ignorant and inhuman and even of insane tyrants, but thanks to its incomparable situation at the gate of two continents, has never ceased to be a city of cosmopolitan tendencies.

Dr. G. J. Zimmerman observes that "all great religions have originated in the solitude of the wilderness"; yet it is equally true that they found their readiest converts among the inhabitants of novelty-loving cities. Buddhism gained its first stronghold in the capital of King Suddhodana, Christianity in Jerusalem, Ephesus, and Rome; Mohammedanism in El Medina. Vanquished creeds, on the other hand, often linger for centuries among the very rustics who were the slowest in accepting their doctrines. In Italy, Catholicism has now its firmest holds among the natives of the isolated districts that originated the name of *Paganism* (from *pagus*, a rustic hamlet). The light of freethought has dawned in Barcelona and Madrid; but the midnight of orthodoxy still broods in the fastnesses of the Alpujares, where the followers of Islam resisted the inroads of the cross for nearly a century

after the fall of Granada. Traces of Paganism still linger in Sicily and the eastern Balkans, and according to Professor Vambery even in the Lepontine Alps, where the feast of the Baal-fire is still celebrated with rites strongly resembling the incantations of the Druids. In the Sierras of Jalisco the superstitions of the Mexican aborigines still count their votaries by thousands; and after the Nature-worship of Monism has become the religion of educated Americans the doctrine of renunciation will perhaps continue to rear its crosses in the highlands of western North Carolina.

(To be continued.)

## CORRESPONDENCE.

### IS THE SINGLE TAX THE SOLE CURE?

REPLY TO MR. SOL LEVY.

To the Editor of THE OPEN COURT:—

May I offer a few words in reply to Mr. Levy's latest criticism. He says that he can give "many instances where economy has had the effect of reducing wages," and he hopes that, "having demonstrated this," I will treat his doctrine courteously. He demonstrates nothing. He simply makes two assertions, without attempting to support them by any evidence whatever. The first is, that the wages of cigar-makers has been lowered by "economical Bohemian workmen"; and the second is, that the wages of Pennsylvania miners has been lowered by "frugal and economical men from Italy and Hungary." It is not necessary to dispute these assertions because the point in controversy here is not whether the wages of miners and cigar-makers has been reduced, nor whether it has been reduced by "frugal and economical" Bohemians, Italians, and Hungarians, but whether the reduction is caused by their economy and frugality. It is quite impossible that the frugality and economy of workmen can have the effect of lowering their wages. If such a result were possible, all the reasons that regulate wages would be reversed, and economic science would stand on an immoral foundation. For centuries, there have been "frugal and economical" men in every trade and calling. If their prudence lowered the wages of their brother craftsmen and themselves, wages would have fallen long ago to the minimum necessary for existence.

Mr. Levy repeats much of his former argument; and my answer to that will apply to the repetitions also. I will notice a few of his later statements. He admits that in his former article he misquoted Col. Ingersoll, but the reason was that he was a little careless, and "quoted from memory." He now gives us the quotation as amended, being careful at the same time to shelter himself behind the Colonel's back. He adopts the easy stratagem of weak disputants and overwhelms his adversary by taunting him with a sentiment from the writings of some great or famous man. A friend of mine, who worked with me on the same job, used to floor me in debate by the following formula: "Oh, you differ with Henry Clay, do you? Bad for Henry Clay." In like manner Mr. Levy tries to be sarcastic by showing "how a great lawyer, and a man of rare accomplishments is liable to lose his reputation as a scholar when confronted by 'Wheelbarrow's' school of political economy." In other words, "You differ with Ingersoll, do you? Bad for Ingersoll." The sneer is wasted upon me. I have no "school" of political economy.

I admit that Col. Ingersoll is a man of rare accomplishments, but nobody has ever accused him of being a great lawyer, although everybody confesses that he is a brilliant advocate. He is an ornamented soda-fountain, gushing, frothy, and sweet. His "reputation as a scholar" is not heavy enough to hurt him, while his political economy is narrow and illiberal. Last summer he pro-



claimed that the true policy of a nation is to find out what economic scheme will injure another nation, and then adopt it. His code of professional ethics as explained by himself shocks the moral sense. It is beautifully wicked. However, I have no controversy with Col. Ingersoll. I mentioned him incidentally because Mr. Levy quoted him as having said that "The bank book of a mechanic is a certificate that wages are too high." This appeared so extravagantly foolish that I thought there must have been a mistake made by Mr. Levy in the quotation. He now admits that there was a mistake, and that Col. Ingersoll did not say what Mr. Levy "quoting from memory" thought he said. Does Mr. Levy, having found out that Col. Ingersoll did not say it, still think it "an indisputable economic truth"?

Still sarcastic, Mr. Levy sneers at me for "throwing chunks of wisdom at the head of the laborer by preaching temperance, frugality, and self-denial, by telling him to be good, virtuous, and economical." I fear there is good reason in the sneer, and that there is much waste of work in throwing chunks of wisdom at the laborer; but after all, it is better than throwing chunks of unwisdom at him, by preaching that the virtues lower wages, and that all the ills, that he is heir to, can be cured by the magic of a single tax on land.

Mr. Levy quotes from Henry George's *Standard*, a catalogue of impossible blessings that will come to society by taxing land-values "to their full amount," and then reproaches me as follows: "This simple, just, but radical reform, Wheelbarrow terms 'the most tremendous feat of engineering ever done by mortal.'" I fear Mr. Levy is again "quoting from memory," because my remark was directed not at any plans proposed by Mr. George, but at the alarming decision of Mr. Levy, who, for the moment had let the land-tax go, and said that "nothing short of rebuilding our whole social structure will be of any real or lasting benefit to the masses." Considering the many thousands of years it has taken to build our social structure up to its present greatness, I thought that the taking of it all apart again and "rebuilding" it, would be a most tremendous feat of engineering. I think so still, although, no doubt, there are men in New York ready to "put in a bid" for the job.

The quotation from Henry George about "taxing land-values to their full amount," is followed by another, from Herbert Spencer, beginning "Such a doctrine is consistent, etc.," insinuating, of course, the doctrine just previously quoted from Henry George. I think the quotation from Herbert Spencer is worthless in this debate, because Mr. Levy wrenched its head off before he brought it in. The doctrine that Spencer was referring to, was not given. Separated from the context, which would have explained it, the beheaded quotation is tacked on the doctrine of Henry George, concerning the taxation of land-values to their full amount. This is hardly fair to me. In the language of honest Iago, "I like not that." I think the "doctrine" that Herbert Spencer was talking about should not have been suppressed and another one substituted for it, as little Buttercup mixed up those children in the play.

Mr. Levy kindly tries to explain to me the difference between taxing land, and taxing land-values. He clears up the matter in this way. "Land-values are not the product of human exertions; they are not a product at all, but simply a value that attaches to land by the growth of a community. The taxing of this fund made by all for the use of all would not be a tax at all, but in the correct sense of the term would simply be rent." This is like unravelling a tangle by tying a few more double knots in it. The explanations are contradictory. According to Mr. Levy, land-values are produced by the "growth of a community," and yet, he says, "they are not a product at all." A community is merely a collection of human beings, and all values made by the growth of a community are due to human exertions, yet, he says, "land values are not the product of human exertions." If land-values are not a product at all, they are nothing at all, and in taxing them nothing is taxed.

Land-values are incorporeal. They are mere qualities, as intangible as black, yellow, wet, or dry. Human laws have no jurisdiction over land-values separate from the land, because human laws cannot bring land-values under forcible subjection. If the taxes on land-values are not paid, the land itself is arrested and sold in satisfaction of the debt.

Mr. Levy is himself drawn into the whirlpool of his own logic. He spins round and round until different objects appear, all alike to him. Land-values, which are "not a product at all," become a "fund made by all for the use of all," and at last the tax upon this "fund" merges into "rent." In saying this, I do not intend the slightest reflection upon Mr. Levy's logical ability. I think the result was inevitable. The very moment we subject incorporeal "values" to the process of taxation, or to the burdens known as rent, we are compelled to attach them to some substantial reality upon which the penalties of the law may operate. All taxes are nominally upon values, but in reality they are upon things. When the assessor came round last spring, he asked me this question, "Have you a watch?" "Yes!" "What's the value of it?" "Twenty dollars?" And he made the proper entry in his book. It looks like a distinction without a difference, when I am told that the "value" of the watch was taxed, and not the watch itself.

Mr. Levy brings his argument to a provoking anti-climax in the last sentence of his article, where he affirms that "It is as true to-day as it was a hundred years ago when the French assembly declared that 'ignorance, contempt, and neglect of human rights is the sole cause of public misfortune.'" I suspect that this quotation is also made "from memory," although the French National Assembly said many things even more absurd than that, though not quite so ungrammatical. "Ignorance," "Contempt," and "Neglect," are three causes, and as neither of them can therefore be the sole cause, there may be a mistake in the quotation, especially as none of those three causes is the sole cause, according to Mr. Levy. He said in his former article that land-monopoly is the sole cause, and taxing land-values to the last penny the "only remedy." After putting me to the trouble of showing that there is no sole cause for public misfortune, but that there are many causes for it; and after disputing with me down to the very last sentence in his second article, he there abandons his own sole cause and adopts the three different sole causes which he says were declared by the French National Assembly a hundred years ago.

Mr. Levy says that he has no "personal controversy" with me. I have none with him; but as I believe him to be a man who sincerely desires the reformation of our social system, I have a personal appeal to make to him. I implore him to abandon the "sole cause" theory, and the "only remedy" prescription. A man of influence and ability may do great injury to the working-men by telling them that any specific plan of reform must "prejudice" all others. In the great scheme of human progress all the moral forces work in harmony together. Not any one of them has precedence over another! There is no jealousy amongst them, no pushing of each other out of the way. A single wrong fears nothing from a thousand rights disputing among themselves over questions of precedence.

WHEELBARROW.

#### MR. GRIFFEN AGAIN ON CAUSATION.

To the Editor of THE OPEN COURT:—

Objects and events of the phenomenal world, whether they be cause or effect, affect us merely by sensuous excitation and we get from them no direct idea or concept of causation. It is by reflection upon the contents of experience that we notice the chain of sequences in phenomena, and thus form the conception of causation. It is true that we cannot think of particular objects or things as existent solely in and of themselves, but we may and do think particulars without including in our thought any idea of the relation of causation. As, for instance, we may think of snow as



white, or as falling, without having the slightest notion or suggestion of [1] the cause of [1] the snow being white, or of its falling, or of its existence; but we cannot think of snow simply and stop right there in thought without taking into view any of the qualities or relations of snow. Having thought of snow as white or as falling we have not by virtue of the same mental act therefore conceived of snow in and of itself as something white or as something falling, minus all relation real or ideal;—we have, in the first instance, instituted a comparison between snow and other objects of our experience as to the distinguishing quality of color, or, in other words, we have classified it with other objects of like characteristic; while in the latter case (that of falling), we have placed it in relation with time and space along with other objects of experience.

Furthermore, as a matter of fact, but perhaps unconsciously and not in present thought, we have also joined, in the relation of subject and object, the rational self, or the thinking being, and snow as white or as falling. But all these and many other mental acts or states of consciousness may and do rationally take place without any thought or suggestion of causation entering into them. When we ask the question 'why,' we then start a process of reasoning which is very different from the simple perception or conception of phenomena or of phenomenal relations as existent in the physical universe or in ideas. The investigation into the 'why' of any and all facts, things and occurrences, is a mental process [1] which must be conducted under the principle of causation and according to its laws or rules of procedure. [2] Whether this principle of causation has any existence external to the thinking being, there is no direct means by which the thinking being can determine. [3] We simply cognize it as operating within and among our mental processes and conceive it as a necessary part of our mental nature. The inquiry into the 'why' is set in motion not solely, nor primarily, by observation of external phenomena as related to us. The brute may and often does look with keener eyes and hear with sharper ears than man, and in a sense observes or senses natural phenomena, but he does not rise into the domain of reason and seek [1] the cause of things. [4] Man is prompted and impelled to reason as to the cause and nature [5] of the objects and things which he observes about him by the *vis* of his own mind rather than by the external stimulus afforded by natural phenomena. Were he as stolid as the brute, nature's phenomena would appeal in vain to him for a solution of their being, and the principle of causation would be without a subject.

Hence we conclude that the principle of causation arises as a conception in consciousness from the natural constitution of the mind itself, and is simply a category, or pre-established rule, with certain limitations, within which we mentally place certain juxtaposed phenomena.

But the principle of causation, erected by the mind as a necessary condition to reasoning, is something different from an active, producing, or creative energy [6], the cause of all phenomenal being, if, in reality, there be such a cause.

A cause *simply*, real or ideal, is to be distinguished as a factor or an element in nature or metaphysics, amenable to the principle of causation, and may be in and of itself of any conceivable nature or constitution whatsoever. It cannot, however, be a cause, except if be susceptible of motion, since it must move upon the existing state or condition of things, in order to produce any change or effect in or upon that state or condition. [7]

Motion, however real or potent, as an ideal entity, has no existence in the phenomenal world, except as descriptive of phenomena in relation to space and time. It is not a substance and, in the sense of substantial entity, it is nothing; but the term connotes an important relation of matter to space and time. If matter possessed but one relation to space and time, viz., that of fixedness, or "at rest," we should have no conception of motion based upon anything real in the phenomenal world. The mechanical,

chemical, and biological changes which take place in the arrangement and associations of material atoms and bodies in space are effected through motion. In order to produce any change in the relation of matter to space, two things at least are necessary: first, a subject of motion (or of activity), and second, motion (or activity) itself. These two elements, combined and interacting with other subjects of activity, whether in action or at rest, constitute cause in the practical sense. A cause minus the subject of activity would be no cause, and hence a misnomer; [8] it would likewise be a misnomer minus the activity.

If there is no such thing in the universe as creation in an absolute sense, excepting only as to the forms of things, there must still be a point from which a new form begins to be; and, in the domain of thought, the mind itself, creating its own forms of procedure, yet not the subjects-matter or contents of those forms, becomes a true productive cause. [9] We may hence safely infer that the forms of thought, being the creations of intelligence and will, the forms of matter, and of all real being likewise, proceed from some analogous but supreme source of intelligence and will. [10] Man creates a world of thought for himself, in which order, in more or less degree, is immanent. He also observes order, in more or less degree, immanent in the phenomenal world about him. Shall he then say that in the one case he, a thing of will and intelligence, is the author of the order he observes, and that in the other case the order immanent in nature has no intelligent and willing author? [11] Because order is immanent in nature, we are not therefore relieved of the intellectual duty of assigning sufficient cause, [12] or proper origin, or reason, for that order. Order immanent is but order inherent, and I am utterly unable to conceive of order existent anywhere in any form or manner, other than as a product of intelligence and will.

A. M. GRIFFIN.

CHICAGO, Oct. 25, 1888.

#### EDITORIAL NOTES.

[1] We should here substitute, [1] the reason for. [1]

[2] We should substitute in place of this passage the following: [1] which, in every single case, after a statement of the process of causation, must be conducted according to the rules of scientific inquiry. [2] These rules consist in classification chiefly by means of generalization and discrimination.

[3] Causation exists independent of the thinking being, but the process of reasoning does not. The meaning of the expression "principle of causation" is ambiguous.

[4] We should again substitute: [1] the reason or *raison d'être* for phenomena. [2] Animals can observe, and really do observe, the causes of phenomena; but they do not seek for the reasons of phenomena. Schopenhauer relates, that when he pulled back the window-curtains, his poodle searched for and detected the cause in the motion of the string. The experiment as to whether animals search for causes, is easily made. Tie a silk-thread to a bone and throw the bone to a dog. Be careful that he cannot discover the thread. If he commences to gnaw, suddenly withdraw the bone, at a favorable moment, in such a way that he does not notice the motion of your hand which withdraws the bone. It is difficult to deceive the dog; but if the experiment is a success, it will have an effect similar to that of ghost-fright. In one case, I am told, the dog at first jumped after the fugitive bone, but when it escaped again from under his paws without any visible cause, he withdrew howling, and could not be induced to touch it again.

[5] 'Cause' and 'nature' are not identical. Reason (the mental faculty of reasoning) enables man to search for reasons or *raisons d'être*, which explain the nature or qualities of things.

[6] "Energy" is a property of nature, from which, as a reason, we explain why things move. It is no cause; special movements, however, due to energy of some kind, are causes.

[7] The whole paragraph is unintelligible to me, and mere sub-



stitutions, as in the cases above, would not suffice to come to an agreement.

(8) Motion considered by itself is abstract motion, causation considered by itself is abstract causation. But for that reason neither motion nor cause is a "misnomer." Compare, on page 1242 of *THE OPEN COURT*, the editorial remark No. 4.

(9) Mind can be called a cause only when defined as a special kind or form of brain-activity.

(10) If forms of matter proceed from, or are caused by, some activity, this activity need be neither will nor intelligence; nor is there any reason to call it "a supreme source." If they originated from some activity superior to themselves, they would represent a degeneration. Evolution teaches the contrary. Higher organized forms develop from lower ones. Supernaturalism has been used as an explanation of this fact; but in vain. Progress, the miracle of evolution, can only be explained from the changeableness of form.

(11) If some order is produced or caused by an intelligent will, there is no reason for assuming that another kind of order, or even that all order, must have been caused by an intelligent will. On the contrary, we know cases in which the order mechanically results of necessity. And such order mechanically produced is always more accurate than that consciously produced by the effort of an intelligent will. Letters printed from types by a press are sure to be more regular and more accurate in their orderly arrangement than such as are painted or written.

(12) 'Cause' and 'reason' are, according to our view, radically different. So long as their difference is not recognized, the problem of causation will remain unsolved. It is by no means strange that a person who does not adopt this distinction should ultimately have to resort to the explanation of a supernatural author of causation; or, what amounts to the same, he will become agnostic and declare causality to be an unsolvable mystery. Both supernaturalists and agnostics despair of solving the problem; their method of solution is a surrender rather than a real solution and will be discarded as soon as the mere possibility of a monistic solution is conceived.—Ed.

#### CAUSE AND OCCASION.

To the Editor of *THE OPEN COURT*:—

May I speak one word in appreciation of your article, entitled "Is Nature Alive?" That gravitation or attraction, and chemical affinity are akin to what in the organic world is called life, seems to me highly probable, and the best answer to the inquiry after life that I have ever seen. In the article on Causality, page 1267, I think I see an error which, corrected, would strengthen your position as taken in the article on "Is Nature Alive?" You write: "The cause of volition of the mind is not the mind itself; but, as a rule, a desire." Again: "The person committing a crime is not a cause. The cause of a criminal's act is his motive." The "desire" and the "motive," I should say, are the *occasion* but not the cause of "volition" or "crime." The cause is the molecular brain-motion or the person. This would better accord with the "opinion" you express near the close of page 1265, "that the atoms, as well as the masses of matter, possess spontaneity or the property of self-motion, which is akin to what in the higher forms of natural phenomena in the organic kingdom is called life. Self-motion is, therefore, life in a broader sense, and the phenomena which are exhibited in protoplasm must ultimately find their explanation from its form as a special and complicated instance of the simpler self-motions of inorganic substances." There can be no occasion then for "desire" or "motive" to cause volition. Desire and motive are themselves caused by atomic or molecular motions of the brain. Desire and motive are the occasion, but cannot be the cause of volition. This would relieve you from the awkwardness of saying: "The person committing a crime is not a cause. But, of course, the criminal is answerable for his deed." His deed, and yet he

not its cause! A dead motive may be an occasion, but it cannot be the cause of anything. The molecular brain-motions which are the life, as you well say, or the person,—these are the cause of the volition. The "criminal," then, who "is answerable for his deed," is the cause of the deed.

FERRY MARSHALL.

Stowe, Vt., Oct. 21.

[Every occasion is a cause. Occasions are such causes as happen incidentally. 'The arrival of a friend will cause us to remain at a place; but an unexpected occurrence will occasion a delay of business with which we happen to be concerned at the moment.' Accordingly we can use the more general term cause for occasion, but not *vice versa*. 'An accident causes or occasions loss.' But we cannot say 'misfortunes occasion affliction.' Affliction is no incidental but the natural and inevitable consequence of misfortune; and in such a case we can only say 'misfortunes cause affliction.'

It is a matter of course that we have no objection to a loose usage of the word 'cause' in popular speech. In conversational style we may speak of a man as being the cause of his actions. 'Cause' is also used in the sense of 'party principle.' We say, e. g., 'the cause of patriotism is embraced by all good citizens.' A cause may be a lawsuit which we endeavor to win. It is obvious that all these uses of the word are fully justified. But if the word is employed as a philosophical term, we have to define it in such a way as to exclude all ambiguity. If our definition of cause is accepted, then the cause of a man's deed is his motive, which, physically considered, is of course "molecular brain-motion." His character (which is a property of the man) is the *raison d'être*, the ground why he allows himself to be guided by such a motive; and, having a character of that kind, the man is responsible for his actions.—Ed.]

#### BOOK REVIEWS.

L'IDÉALISME EN ANGLETERRE AU XVIII<sup>È</sup> SIÈCLE. By Georges Lyon. Paris: 1888. Félix Alcan. 1 Vol. 7 fr., 50 c.

In the presentation of the work now before us, M. Georges Lyon has done an undoubted service to the history of English philosophy. His design has been, to study in its sources, and to follow in its successive modifications the great philosophical principle that the metaphysicians of ancient Greece had anticipated, and that Berkeley carried to its perfection.

The speculations of Descartes and Malebranche have exercised an exceptionally potent influence upon English thought, and M. Lyon has endeavored to present to the public the prominent features of the various philosophical writings that owe their origin to the inspiration of the authors cited. Though written for the philosophy-reading public of France, its discussions and estimates will be of equal value to the readers of England and America; inasmuch as it treats of authors and works almost as imperfectly understood in the places of their nativity, as in France, where a critical acquaintance with the lesser productions of American and English schools could hardly be expected: we refer to the writings of John Norris, Arthur Collier, etc. American readers will take especial interest in the chapters upon Samuel Johnson and Jonathan Edwards, the illustrious metaphysicians of our colonial period, and will find in this work a just estimate of their importance in the history of philosophy.

MRK.

MEXICO: PICTURESQUE, POLITICAL, PROGRESSIVE. By Mary Elizabeth Blake and Margaret F. Sullivan. Boston: 1888. Lee & Shepard.

We know of no book that gives within so narrow a compass so great an abundance of material for reflection upon the picturesque and political features of our sister republic, as the work before us from the pens of Mrs. Sullivan and Mrs. Blake. Mexico has had



many historians of the romantic epoch of the Conquest, from the quaint old Diaz to the stately and graceful Prescott, but this land of immobility has been singularly unfortunate in its historiographers and chroniclers of subsequent periods. "Although," says Mrs. Sullivan, "hundreds of authors have travelled the country and left their impressions on record, out of the mass of their labor little that is of absolute value can be extracted. . . . Writers in the present century only repeat the narrations of those of the preceding ones." Continuing, the authoress says: "Partly from observation and partly out of authorities selected from various groups,—in an effort to keep clear of partisans against Mexico,—and with the understanding that in statistics estimates must be employed in lieu of ascertained facts, I venture to offer some brief considerations." Then follow remarks upon the constitution and government, religion and education, the economical policy, the manufactures, etc.—all unknown subjects to us, and treated by a writer who has given the public abundant evidence of an authoritative acquaintance with political and economical problems.

The bulk of the book has been taken up by Mrs. Blake in Part I, entitled "Picturesque Mexico." An enumeration of the chapter-titles alone would testify to its attractiveness: "Into the Sun Land"; "Glimpses of a New World"; "Through Lanes and Highways"; "Shrines and Pilgrimages"; "Literary Mexico"; "Blossoms of Verse," etc. We mark it as an interesting book.

THE FAITH THAT MAKES FAITHFUL. By William C. Gannett and Jenkin Lloyd Jones.—SHOW US THE FATHER. By Messrs. Savage, Culthorp, Simmons, Chadwick, Gannett, and Jones.

A collection of sermons which breathe the fresh spirit of Unitarian Christianity. It cannot be expected that they should be entirely free from dogmatic embraces, but their ethical spirit (especially of the first little volume) is refreshing.

THE PHILOSOPHY OF KANT, AS CONTAINED IN EXTRACTS FROM HIS OWN WRITINGS. Selected and translated by John Watson, LL. D., Professor of Moral Philosophy in the University of Queen's College, Kingston, Canada, author of "Kant and his English Critics."

Professor Watson says in a Prefatory Note: "The study of philosophy is of little value if it does not teach a man to think for himself. The process of self-education is necessarily a severe one, and, therefore, distasteful to the natural man. Yet any attempt to evade it by some 'short and easy method' defeats the end. What is required is a process by which the student who is really in earnest may pass, gradually and surely, from a lower to a higher plane of thought. The philosophical writings of Kant, which exhibit in brief the transition from the old to the new, I believe to be a potent instrument for this end. But the struggle upwards must be made by the student himself." Therefore the Professor's plan was, "to set a class of more advanced pupils at work upon extracts from the philosophy of Kant, to watch them as they forced their way through its perplexities, and to put forth a helping hand only when it seemed to be needful." A limited edition of Extracts which had originally been printed for the use of his own students, but were also used in other American Universities, are now out of print, and Prof. Watson has gone carefully over the writings of Kant again, and he adds: "Selecting and re-translating all the passages essential to the understanding of his philosophy. The Extracts have been taken from four treatises—the *Critique of Pure Reason*, the *Metaphysics of Morality*, the *Critique of Practical Reason*, and the *Critique of Judgment*."

"In the translations," the Professor says, "I have sought to express Kant's meaning as clearly and simply as I could, and in no case, so far as I am aware, have I been misled by a pre-conceived theory of what he ought to say."

And he adds: "I believe that what is here given contains all the main ideas of Kant in their systematic connection."

As the writings of Kant, it must be confessed, are "full of confusing repetitions," such a selection as offered in this book is quite commendable for any one who wishes to become acquainted with Kant not through the medium of interpreters but directly with himself.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXV—Continued.

An expression of irony overspread the broad features of Mr. Hummel.

"So that fellow over there is your equal?" he began; "that is exactly what I wished to disabuse your mind of. I should not approve of your regulating your feelings according to that weather-cock over the way. I do not choose that the idea should ever come into the head of Hahn Junior to build an arch across the street, and to wander about in slippers from one house to the other. The thought does not please me. I will bring forward only one reason, which has nothing to do with the old grudge. He is his father's son, and he has no real energy of character. One who can endure to sit year after year in that straw-nest, turning over the pages of books, would not, if I were a girl, be the man for me. It is possible that he may be very learned, and may know much about things that other men care little for; but I have not yet heard that he has accomplished anything by it. Therefore, if that should happen, which will not happen so long as the property over there is a poultry-yard,—if I, Henry Hummel, should consent that my only child should sit knitting stockings in front of the white Muse, it would be a misfortune for my child herself. For you are my daughter. You are just as self-willed as I am; and if you should get among those white-livered people, you would disturb them lamentably, and be very unhappy yourself. Therefore, I am of opinion that your headache was silliness, and I wish never to hear again of like ailments. Good day, Miss Hummel."

He strode out of the door, and as he heavily descended the stairs, he hummed the tune:

"Bloom, sweet violet, that I myself have reared."

Laura sat at her writing-table supporting her heavy head with both her hands. This had been a trying scene. The speech of her stern father had wounded her deeply. But in his depreciating observations on their neighbor's son there was a certain truth, which had already crept like a hateful spider over the bright leaves of her sympathy. He must go out into the world. Her friends below were thinking of going into foreign parts. Ah! she herself, a poor bird, fluttered her wings in vain, for the fetters on her feet held her back. But he could free himself. She would lose him from her neighborhood, perhaps lose him for ever; but this ought not to hinder her from telling him the

\* Translation copyrighted.



truth. She hastily searched among the old sheets; she could find but one ballad, which undoubtedly did not fit the Doctor, inasmuch as it expressed the feelings of a dissolute wanderer. The song was inappropriate, but there was none better. Our ancestors, when not occupied in highway exploits, took little pleasure in travelling. The letter must do the work. She wrote as follows:—

"The summer birds are flying, and man also years after the distant lands of his dreams. Do not be angry with the sender of this, for begging you to imbibe something of the spirit of this song. Your home is too narrow for you. Your merits are not appreciated here as they deserve. You are deprived in the quiet house of your parents of those experiences which a man gains when he forms his life by his own qualifications. I well know that your highest task will always be to promote learning by your writings. That you may do everywhere. But do not think it beneath you to influence younger minds by personal intercourse with them, and to participate in the struggles of their generation. Away, Doctor! the unknown bird sings to you the song of the wanderer. With sorrow will your loss be felt by those you leave behind."

About the same hour, Gabriel was sitting in his room brushing the last specks of dust from his best livery which he had spread over a chair. At his feet lay the red dog, licking his paws and giving utterance to an occasional growl. Gabriel looked contemptuously at the dog.

"You are not handsomer, nor better than last winter. Your knavish nature delights in nothing but eating, and flying at the legs of the passers-by. I have never known a dog so much hated, or who deserved it so well; for your only pleasure is to despise all that is respectable. What is your favorite amusement? When it has rained and a ray of sun attracts people to walk in the wood, you lurk on the steps; and when a young girl appears clad in her light summer dress, then you leap like a frog into the puddle that lies before her, and spatter her dress all over, and I have to fetch a cab to take her home. What did the strolling cigar-dealer do yesterday to provoke you. His chest was standing on the bench in Mr. Hummel's garden, and the prospect of a bargain was certain. The cigar-man went a few steps from his chest to speak to an acquaintance, and you, miscreant, made a spring at the bread and butter lying on the chest, and came with all fours on the glass. It broke, and the splinters mixed with the cigars; you trampled them altogether into a powder, and then returned to the house. You, monster, caused your master to deal roughly with the trader when he complained of you, and the man packed up his wares and went away from our house

with a curse on his lips. On what nocturnal excursion have you been since then? No human eye has seen you."

He bent down towards the dog.

"So this time it has gone into your flesh. I am glad to see you can injure yourself as well as others."

Gabriel examined the dog's paw and extracted a glass splinter. The dog looked at him and whined.

"If I only knew," continued Gabriel, shaking his head, "what pleases the dog in me. Is it the bones, or perhaps some roguish trait of mine that amuses him? He hates the whole world, and even snarls at his master; but he comes to visit me and behaves himself like a worthy companion. And he is still more crazy about my master. I do not believe that the Rector knows much of Spitehahn. But whenever this fiend sees my Professor, he peeps at him slyly from under his shaggy eyebrows, and does his best to wag his tuft of a tail. And when my master goes to the University, he runs after him like a lamb behind its mother. How comes it that this black soul attaches itself to the Professor? What does he want with our learning? They do not believe in you anyhow, Spitehahn."

He looked round suspiciously and hastily donned his coat. Arrayed in his Sunday attire he left the house. The Hahn family were not at home, for Dorchchen was looking out of the dressing-room window. She laughed and nodded. Gabriel took courage, and stepped into the enemies' hall. The door of the room opened. Dorchchen stood on the threshold curtsying, and Gabriel, holding the handle of the door, began, solemnly:

"It would be much more pleasant for me if I could have the pleasure of accompanying you in your walk to-day."

Dorchchen replied, twitching at her apron:

"I have got to stay here to mind the house, but that need not prevent you from going."

"I should then take no pleasure in it," replied Gabriel, bowing, "for I should be always thinking of you, and I had much rather be with you here than only think of you in the open air. If, therefore, you would allow me to stay here a little while—?"

"Why, come in, of course, Gabriel."

"Only to the threshold," said Gabriel, advancing, still holding the open door. "I only wanted to say that the number of which you lately dreamt is not to be found at any of the offices. I have, therefore, taken another, and have had it drawn by a little beggar lad, as that brings good luck. I shall be so pleased if you will play this number with me. It is quite a sum, for it is a whole eighth of a ticket."

"But that will be no good sign," said Dorchchen, with pretty embarrassment.



"Why not, Fräulein? It was a real beggar-boy."

"No, I mean when two play together who love one another."

"Dear Dorchen!" cried Gabriel, approaching nearer and seizing her hand.

A hollow gurgle interrupted the conversation. Dorchen drew back from him terrified.

"It was a ghost," she cried.

"That is impossible," said Gabriel, consolingly: "for, first, it is day-time; secondly, it is in a new house; and, thirdly, spirits generally do not make such a noise. It was something in the street."

"Your being here is a real comfort to me," exclaimed the timid Dorchen. "It is fearful to be alone in a large house."

"To be together in a small house is particularly jolly," cried Gabriel, boldly. "Ah, Dorchen! if we could venture to think of it."

Again a slight rumble was heard.

"There must be something here," cried Dorchen. "I am so alarmed!"

She sprang away from him to the middle of the room. Gabriel took a yard measure, and looked under the furniture.

"So you are there, are you?" he cried, angrily, poking with the yard measure under the sofa.

Spitehahn leaped forth with a bark on to the nearest chair, from the chair on to the console, on which the clock stood; he knocked down the clock, and dashed through the half-opened door.

It was the parlor clock and a wedding present. Mr. Hahn wound it up every evening before he went to bed; it had two alabaster pillars with gilded capitals; the rest was of American wood, and represented a triumphal arch. Now the treasure lay in ruins, the pillars shattered, the woad broken, and the dial split. In the opened works a single wheel whirled with fearful rapidity, all the rest was motionless. Dorchen stood dismayed before the fragments, and wrung her hands.

"The monster," groaned Gabriel, occupying himself in vain with the shattered work of art, and endeavoring with no better result to comfort the poor maiden, who trembled before the terrors of the ensuing hour.

"I had a foreboding," cried Mr. Hahn, on his return home, "that something would happen to-day. I forgot yesterday, for the first time, to wind up the clock. But now my patience is at an end; there will be war to the knife between him over the way and me." He approached the sobbing maid threateningly. "Bear witness to the truth," he cried out; "the court will demand your testimony. Do not seek safety in hypocrisy and lies. Was it the dog, or was it you?"

Dorchen dramatically related the whole transgression of Spitehahn; she poked under the sofa, as if she could draw the dog out bodily; she confessed,

weepingly, to the open door, and explained Gabriel's presence as owing to an inquiry he had made of her."

Mr. Hahn hastened to his writing-table, and wrote a strong letter to Mr. Hummel, in which he related the misdeed, and threateningly demanded compensation. This letter Mr. Ruddy carried off to Mr. Hummel, with a board on which were laid the ruins of the clock.

Hummel read the letter carefully, and threw it on the table.

"I congratulate your master upon his new undertaking for the summer," he said, coldly. "Carry the débris back again; I have no answer for such nonsense. Some people *will* make fools of themselves."

The following day a judicial complaint again raised its Medusa's head between the two houses. This time even Mrs. Hahn was deeply incensed; and when she, shortly after, met Laura on the street, she turned her good-humored face to the other side, to avoid greeting the daughter of the enemy.

Laura received the Doctor's answer to her letter. In a pretty poem the happiness of the parental house was extolled, and he spoke of his great delight in his neighbor's charming daughter, whom the poet saw in the garden among her flowers, whenever he looked over the high hedge. He further added: "The advice which you express so sincerely in your lines has found an echo in me. I know what is lacking in my life. My learning makes it impossible for me to find recognition in wider circles, an honor, which the friends of a learned man desire for him more eagerly than he himself does; it also makes it difficult for me to adopt the academical course to which I have now a call in foreign parts. But the nature of my studies takes from me all hope that any outward results can ever overcome the hindrances which oppose themselves to the secret wishes of my soul."

"Poor Fritz!" said Laura; "and yet poorer me! Why must he give up all hope because he studies Sanscrit? It is not courage that is wanting to these learned men, as father says, but passion. Like the old gods about whom you write, you have no human substance, and no blood in your veins. A few sparks are occasionally kindled up in your life and one hopes they may light up into a mighty flame; but immediately it is all smothered and extinguished by prudent consideration." She rose suddenly. "Ah! if one could but lay hold of Fritz by the hair and cast him into the wildest tumult, through which he would have to fight his way bloodily, defy my father, and hazard a great deal, in order to win what he in his gentle way says he desires for himself! Away with this quiet, learned atmosphere: it makes those who breathe it contemptible! Their strongest excitement is a sorrowful shrug of the shoulders over other mortals or themselves."

(To be continued.)



## FORMER CONTRIBUTIONS TO "THE OPEN COURT."

WHEELBARROW'S essays are contained in the following numbers of THE OPEN COURT:

Chopping Sand.....	page 352 in No. 13
The Lackoon of Labor.....	" 410 in No. 15
The Poets of Liberty and Labor. THOMAS HOOD	" 461 in No. 17
To Arms.....	" 615 in No. 22
The Poets of Liberty and Labor. Continued.	
GERALD MASSEY.....	" 745 in No. 26
Making Scarcity.....	" 901 in No. 34
Economic Conferences. I. A review of Geo. A. Schilling's lecture.....	" 950 in No. 37
Economic Conferences. II. A review of Lyman J. Gage's lecture.....	" 993 in No. 40
Economic Conferences. III. A review of T. J. Morgan's lecture.....	" 1104 in No. 47

GEORGE M. GOULD.

In Nos. 24, 25 and 26 Mr. George M. Gould treats of "The Ethics of Economics" rather as a quality absent from our economic system than as a living principle belonging to it. His doctrine is that all things produced by human labor represent the expenditure of human life, and that dollars and dimes, being representatives of wealth or earnings, are as drops of precious human blood. Therefore, in order to a rightful ownership of dollars, we must earn them; we must return to society a share of our own lives equal to the quantity we have received from our fellow men. According to Mr. Gould, whenever we eat or drink we partake of a solemn eucharist, where "the shadowy ghost of humanity calls out to us: 'Take, eat; this is my body. Drink ye all of this, my blood which is shed for many.'" This is not to be understood metaphorically, he says, but as "an exact statement of the fact."

While perhaps the theory of economics presented by Mr. Gould may not be scientifically true in all its parts, the moral he draws from the actual facts of our industrial system is true enough for warning and for guidance. The partnership of capital and labor is the panacea of Mr. Gould, the solution of the labor question. But from his ideal plans of industrial emancipation he excludes unpleasant facts. He allows only profit-sharing to come in, and loss-sharing is never taken into calculation. Yet it is the possibility of loss that has thus far defeated the "co-operation" experiment. It is doubtful if the operatives in any great factory would accept the whole plant as a gift, if compelled to take it on the terms by which its owners run it, the chances of profit and loss.

There is some extravagance in his language, but that is only a measure of his benevolent impatience at the inequalities and wrongs which refuse to be cured by his remedies. That the "ethics of economics" lies in the doctrine of "equivalence for service" is very likely true, but there is a difference of opinion as to the correct measure of that "equivalence," and a still greater dispute as to the means by which that measure shall be legalized and enforced.

EDWARD C. HEGELER.

In No. 15, Mr. E. C. Hegeler explains his view of the soul. The soul, he says, is the form of a very complicated, self-acting mechanism of living substance; a part of its activity is accompanied with feeling; the feelings correspond in form to the most essential parts of the mechanism. The soul, as expressed by Bock, enters into our brain through the gateway of the senses. Reason is formed through the instrumentality of language. Noiré says: "Man thinks because he speaks." Immortality does not only mean the indestructibility of matter and energy but *soul preservation*. It implies not only continuance of life, but life in a special form. We can to a great extent renew ourselves by forming our soul in the growing generations through education and by example. To preserve and to elevate the *quality* of the human soul, that is the basis of ethics.

W. D. GUNNING.

Mr. W. D. Gunning's essay *Katzenjammer*, in No. 1, is a sprightly, half humorous, half serious lay sermon, sending shafts of light into the dark recesses of the mind. Katzenjammer is a German word, which means cat-sickness, and denotes a malady of body and mind which results from night-life. The owl, the night-hawk, the whip-poor-will and all the felines are night-prowlers. Men also have gone astray with the cats and become nocturnal; even Socrates, with all his virtues was somewhat addicted to Katzenjammer. Katzenjammer was a large factor in the decline of Athens and the chief factor in the fall of Rome. What a Katzenjammer's hand was that of Cataline! What Katzenjammer was that of Nero fiddling in the light of burning Rome! Struggle for life drove one member of a certain family higher into the air, and another into the ground. The sun-seeker gained in eye and brain, the earth-burrower lost his eyes and retained only brain enough to guide it through the ground. Such are the fates of the mole and the bat. Igdrasil the tree of life has been pushing its human fruit inward to the shade. We want a peripheral humanity lit by beams of science and sweetened and mellowed by active rays of the sun of righteousness.

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# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 63. (Vol. II.—37.)

CHICAGO, NOVEMBER 8, 1888.

Two Dollars per Year.  
Single Copies, 10 cts.

## THE SPIRITUALISTS' CONFESSION.

BY MONCURE D. CONWAY.

To those who remember the first Rochester rap, the scene at the Academy of Music, on Sunday evening, Oct. 21, was more replete with dramatic effects than any play ever witnessed there. Some were comic; as when five physicians were holding the shoeless foot of a somewhat hysterical woman to find if the hammerings heard through the theatre proceeded from it. Other features of the scene, though they excited the laughter of the young, were not without a certain tragical import for maturer minds; such as the occasional cries from spiritualists in various parts of the house, to whom the whole thing was a ghastly attempt to bury alive their loved ones who had been dead, but who had been restored to them by the faith now pronounced by its founders an imposture and delusion.

The elder of the impostors,—to whose confession assent was given by the younger from the private box where she sat in full view,—solemnly asked the pardon of Almighty God for her career of deception. She also invoked pardon "for those who have opened their hearts to the silly imposture." She did not ask pardon of those she had deluded. There is something so ghoul-like in fattening on graves, so vampyre-like in living on the life-blood of hearts yearning for their departed friends, that pardon could hardly be asked for—unless of so lenient a confessor as her Catholic Father, who told her that "as she was in this business, and did not believe in it, and had to support herself, to charge very high prices, so that it would at least limit the number of [her] patrons."

The confession is brief. The whole spiritualist movement proceed from a cultivated abnormality in the big toe.

The elder woman's big toe sounded like a muffled hammer, but I heard every stroke from the farthest part of the balcony.

That, then, was the Rochester rap, whose effect may be compared to first gun of the revolution—"heard round the world." Who cannot remember the thrill of the tidings that invisible intelligences were signalling their presence through the mediumship of two humble and innocent children at Rochester? The unbelieving made fun of the little Foxes exhibited by their sister Fish as agents of the spiritual world, on

strictly business principles; the critical suggested explanations, among them that now confessed; but thousands eagerly welcomed the theory that out of the mouth of babes infidelity was to be confounded.

From Rochester the spiritualistic sower went forth to sow everywhere the seed which sprang up in ghosts. There was not a house in which people did not try to get raps on their tables. But toes able to hammer were not numerous. Muscles that could tip or turn tables, purposely or unconsciously, were universal; so table-turning was spiritualized. Under the Rochester raps all manner of defunct conjurations revived. Mesmer came from his grave, and began to make his passes in the land of Franklin, despite the quietus given his pretensions by Franklin in Paris. Along with holy hopes and visions, and the mysteries of the unfathomed inner life, hypnotism and hypocrisy, magnetism and imagination, tricks, legerdemain, were thrown into the cauldron which the Foxes set bubbling, and out of it was evolved Spiritualism.

In the forty years since that November when the Fox children were first tested in public,—by committee after committee, with stethoscopes, and even without clothing,—Spiritualism has gained more converts than Christianity gained in three centuries. There must have been a combination of favorable conditions. In the last century similar noises occurred in the Wesley family at Epworth. The Cock Lane ghost in London rapped replies for John Wesley and others, similar to those at Rochester. But those incidents occasioned no religious revolution. Forty years ago the effect can only be compared to the conflagration which the same children, with one spark, might have spread over a prairie. The religious growths must have been dry and combustible.

The age is far past since the toiling and suffering millions of Protestant lands have enjoyed realistic visions of the spiritual world. When the Anglo-Saxon man ceased to kiss the papal toe he became politically erect; he became scientific and progressive; but his rosy heaven has been getting more dim ever since. Spiritualism uplifted once more over our cold and cruel world the heaven of guardian spirits. To my vision there was a phantasmal procession passing across the stage where the medium made confession; of those whose humble lot had been illumined, whose



griefs were rendered endurable by what Emerson called "the rat-hole revelation." Behind these came shining foreheads—William and Mary Howitt, Edmonds, Hare, De Morgan, Varley, Wallace, Oliphant, Crookes; and also poor Zöllner came from his Asylum, leading many whom the raps had deprived of sanity. They all advanced, as if in a Sistine chapel, and solemnly pressed their lips to the Toe of the Fox woman!

According to this confession Cleopatra's nose never made more history in the Old World than the Fox girls' toes in the New. But a suspicion occurred to me that we have as yet only a small part of the confession which these mediums owe to the world they have been humbugging. They were introduced by Dr. Richmond, who is lively and ingenious. He imitated the slate-trick, the name-reading and the bank-note tricks, and showed how easily he could cheat us. But it is doubtful whether Dr. Richmond has been careful not to be deceived himself while undeceiving others.

It was gentlemanly to mitigate a woman's humiliation, but the doctor went too far in saying that Margaret Fox had never claimed that her manifestations were the work of spirits. On November 6, 1884, she was tested by the Seybert Committee in Philadelphia; and although at one point of the *séance* she did say "I do not say the sounds are from spirits," she also said that she had no control over them, and pretended that the spirit of Mr. Seybert used those raps to communicate with the committee. "Every rap," she said, "has a different sound. For instance, when the spirit of Mr. Seybert rapped, if the sound was a good one, you would have noticed that his rap was different from that of another." At another time Dr. Pepper, Provost of the University of Pennsylvania, addressed the spirit of Mr. Seybert: "Harry, will you communicate with me as you promised to do?" The promise had been through the same medium, who now gave responsive raps; then she called for paper and wrote, from right to left, a communication signed Harry Seybert.

It may be mentioned here that the Seybert Committee discovered that the raps came entirely from this medium's person. Dr. Furness, the Shakespearean scholar, with the medium's consent held her foot during the raps, and said: "I distinctly feel them in your foot. There is not a particle of motion in your foot, but there is an unusual pulsation." After this she declined another *séance*.

But although this toe power seems abnormal, and worthy the attention of scientists, it is insufficient as an explanation of the spiritualistic career of these sisters. Dr. Richmond announced that the younger sister assented to whatever the elder said, and Mrs. Catharine Fox Jencken gave visible sign of such as-

sent from her stage box. But Mrs. Jencken must have known, albeit Dr. Richmond did not, that her career is not explicable by toe raps. To her, perhaps more than to any other, is due the deception of the English scientific men by whose credit spiritualism has been able to survive in that country exposures which would otherwise have crushed it. The first scientific convert there was Varley, the electrician.

Nineteen years ago the London Dialectical Society, of which I was a member, appointed a committee to investigate spiritualism; and on May 25, 1869, Mr. Varley gave evidence before it. He gave a memorable account of *séances* with Catharine Fox. "The spirit who was to coöperate with me was stated to be Dr. Franklin. When I appeared the first time with the apparatus at the minute appointed, I was received with a chorus of raps such as fifty hammers, all striking rapidly, could hardly produce.... Miss Fox, you are doubtless aware, is the medium through whom the modern spiritual manifestations were first produced in the United States, and through her mediumship the most striking physical phenomena I have ever heard of were witnessed by my friends Dr. Gray, a leading physician in New York, and by Mr. C. F. Livermore, the banker, both of them shrewd, clear-headed men. During my investigations, Mr. Livermore and Mr. and Mrs. Townsend sat with us. Mr. Townsend is a New York solicitor, at whose house the meetings of the circle were held. Mr. Livermore went and stood by her and distinctly saw a hand, and we all saw a blue light come from under her dress. I have often seen these lights in her presence."

It was, also, at Mrs. Jenckens house, near the Crystal Palace, that some of the wonderful things occurred which Lord Lindsay related to the Dialectical Committee. The celebrated Mr. Home was staying there, but some of the marvels appear to have involved coöperation. Thus, Lord Lindsay, having missed his last train, slept in Home's room, and, just as he was going to sleep, saw a female figure at the foot of his sofa. "She seemed to be dressed in a long wrap going down from the shoulders, and not gathered in at the waist. Home then said, 'it is my wife; she often comes to me.' And then she seemed to fade away."

As no other lady appears to have been in the house than Mrs. Jencken, who now assures us that spiritualism is an imposture, it would be interesting to learn her explanation of this apparition. Obviously, it could not have proceeded from anybody's toe. Nor can it be supposed that the Fox toe is capable of multiplying itself into the fifty simultaneous hammers which Cromwell Varley heard in the presence of Catharine Fox, or of emitting the blue lights seen by him and others coming from under her dress, or of shaping itself to the aerial hand seen by Mr. Livermore.



It is plain, therefore, that the confession of these sisters is incomplete. It is to be hoped that having dismissed lying spirits they will be possessed by the spirit of truth alone. The only compensation they can now give to the world they have so long conspired to delude, avowedly for gain, and for the money they now make by their confession, is that this should be the truth, the whole truth, and nothing but the truth. These "reformed mediums" have been in the confidence of the spiritualist world; they have been intimate with the mediums of Europe and America. If now, as they declare, they have entered on a "holy war" against the movement they inaugurated, let them give the whole thing away. That cannot be done by the physiological curiosity displayed at the Academy of Music. Nor do Dr. Richmond's ingenuities explain the manifestations wrought by Mr. Home and herself in Mrs. Jencken's house. How did Home levitate and elongate? How did burning crystals appear on his head? How was managed that vision which Mr. Jencken attested—"a figure, draped in what appeared like a transparent loose gauze or veil, passed to and fro, imaged on the wall, which had become luminous"?

The solving of some of these mysteries does not concern the mere curiosity of mankind, but their most vital and practical interests. Dr. Richmond exclaimed from the stage: "There has not been a miracle performed for 1800 years. Anybody who pretends to work miracles ought to be in the penitentiary." "How about Miss Fox?" cried a voice. "How do we treat State's evidence?" was the clever retort. But I remarked that the allusion to miracles 1800 years ago was followed by a burst of general and derisive laughter. And what wonder? What are the people to think of miracles of a pre-scientific age, reported only in the century following their occurrence, by tradition from unlearned witnesses who could not be cross-examined, when here, in our time, the very experts of testimony,—lawyers like Judge Edmonds, Mr. Jencken, and others; scientists trained in experimental investigation, like Varley, Hare, Crookes, Wallace,—are found at the feet of vulgar tricksters, where the fraud is veiled with unctious sentimentalism?

What is the value of testimony warped by religious and human emotions? To these lawyers, judges, scientists, the community entrusts issues of life and death. The opinion of Mr. Crookes whether a red spot on a garment be logwood or blood might determine a prisoner's life or death. The late Andrew Leighton, an English poet, eleven years ago demanded through the press: "What is there in Mr. Crookes's expositions of these phenomena which renders his evidence inadmissible or incredible, while his paper on his discovery of the metal *Thallium* and his latest discovery of

the dynamical force of light are accepted by the scientific world with universal acclaim? If he be a competent witness in the one case, is he not equally so in the other?" The only possible reply to this position was that in the case of *Thallium* his discovery was verifiable by any and every man, but the "materializations" reported in his book (*The Phenomena Called Spiritual*) are not verifiable. But it was easy to answer that the unbelievers had not, for verification, gone through the exact and patient experiments which led Mr. Crookes to his discovery. This position, logically weak, was practically impregnable. But where logic and criticism failed the clumsiness of mediums succeeded.

The mediums with whom both Crookes and Wallace conducted their experiments were subsequently detected in frauds, so completely that English spiritualists disowned them. And now the medium whom Varley, an electrician of the Atlantic cable, declared most wonderful of all, avows herself an impostor. Think of a scientist successfully testing the Atlantic cable, but victimized by a girl's toe-joints!

I once asked Professor Tyndall how he accounted for the spiritualistic belief of a certain eminent man of science. He replied: "That man's intellect is a loom. Give him his facts, he will vigorously weave them; but his discrimination as to what are facts is faulty, and he will sometimes weave rotten along with sound threads into his web."

Not long after, a female medium—a favorite with these spirit-scientists—was detected by two gentlemen of the British Museum. While the spirit was walking about the room under a dim light she was clutched by one, and the other, striking a powerful light, revealed the form of the medium,—supposed to be securely bound with sealed knots in a cabinet. The facts were certified in the *Times*. They were admitted. But the scientific man whose judgment Dr. Tyndall questioned wrote a letter to the *Times*, maintaining that the spirit, not being able to materialize that evening, had that evening utilized the medium's body, without that medium's consciousness or knowledge.

What wise spirits! To select for this exceptional performance the particular evening when two scientists were present with apparatus for bringing their medium into disgrace! Yet such was the degree to which emotional enthusiasm could smother the brain which, simultaneously with Darwin, discovered the law of Evolution!

#### THE HIBBERT LECTURES AND THE GAULISH PANTHEON.

BY S. ARTHUR STRONG.

The institution of the Hibbert Lectures may be regarded as supplying a want which would otherwise be



keenly felt in England as compared with France, Holland, and Germany—the want, namely, of some organized and permanent encouragement for the study of religion from the comparative and scientific as opposed to the sectarian or missionary standpoint.

The foundation of the rational criticism of the Bible—the throwing open, that is, to the free application of methods tested and found fruitful in secular inquiries of a field long marked out by a thick wall of traditional prejudice as holy ground—will always rank among the most precious of the many contributions made by Germany to that common fund of deeper culture, maintained, as it were, by international effort, and upon which the liberal education of our own country is becoming more and more dependent, as the insufficiency of our academical machinery to provide for its growing needs is becoming more and more apparent. France and Holland have not been slow to tread the path traced and to a large extent cleared by Germany. Though the glory of the Tübingen school—once so notorious in England—may have departed, its traditions of labor and freedom have found worthy representatives in Leiden: the Collège de France, whose very foundation was at once a promise and a protest, includes in the number of its endowed professors one whose duty it is by widening our knowledge of religions to purify and deepen our conception of religion; but in England—in spite of endowments the magnificence of which the foreigner envies—in spite of the fact that our older academies, unlike their continental sisters, are still mainly true to the religious character impressed upon them at their foundation—it has been left to the generous enterprise of a single person to supply the only permanent means whereby the educated classes of this country can make acquaintance with the results of historical criticism, as applied without prejudice to that subject which to the mass of thinking men is still the most absorbing and important. We are far from defending or even excusing the attitude of the English universities. They have held aloof from a movement which they should have inaugurated: instead of welcoming and supporting a new science, they have regarded its introduction from abroad and rapid growth in a freer air than their own with at best a sulkily acquiescence; but on the other hand, it must not be forgotten that the *libertas philosophandi*, without which in its most absolute form our study is but a mockery and a sham, can hardly be secured and enjoyed by those who through membership of a corporation centuries old are confronted at every turn by prejudices and beliefs which are never slow to assert themselves, but which in the interest of social harmony must be recognized and, if possible, conciliated. From this it would seem to follow that what the young foundation loses in artificial prestige,

it may gain in scope and variety. The occupants of the Hibbert chair enjoy absolute freedom of choice in the matter both of subject and of method. The tone which they adopt is not necessarily one of apology, but, as in the case of the exponents of all other branches of science, is determined by conviction and predilection. They are free from the obligation of serving a particular class-interest by exalting one department of their subject at the expense of all the rest; and the lectures being delivered by a series of scholars, of whom each speaks of that which he has specially studied, represent, as it were in outline, the whole area covered by the science in question.

The volume before us differs in one important respect from all its predecessors—not only in bulk, though it is the largest yet published by the Hibbert trustees—but in its relation to its author. It is the outcome of a labor of love devoted to a task, for which the author's qualifications are superior in kind to those possessed by any former occupant of the same chair. We have watched great scholars as they tried so to piece together the scanty remaining fragments of shattered mosaics as to restore, if nothing else, the outline of the principal forms. In such cases the antiquary has only a partial survival to deal with; and the tradition of the extent and significance of the whole may have been interrupted centuries ago. Habits of thought alien from those of his own land and time, he must present and expound as best he may; putting his ear to the ground, as it were, he has to catch the faint echoes of a buried life.

In the case of Professor Rhys, however, there is one feature which distinguishes him at the outset from scholars confined in their observations to the remote standpoint of an alien. He is bound by the strong tie of blood to the race whose early religious monuments he restores and interprets. Of the languages with which he has to deal, several are still spoken; and though the mythology of the early Celts has been largely obliterated by a Christian overgrowth of almost equal extent and complexity, it has nevertheless left traces in abundance, which are still easily recognizable, in the thought and customs of the Celts of the present day. Hence it follows that, though the worker in the field of Celtic literature who is himself a Celt is not exempt from the difficulties and uncertainties which flow from the very nature of his subject, he can yet claim the balancing advantage that he has access to and can employ a continuous tradition. The bridge spanning the gulf between the present and the past may be narrow; it may not be equally strong at all points; but with care and caution it can be safely crossed.

When it is remembered that the present volume of seven hundred pages is but a tithe of what the author might have given us, had he been free to follow



his own plan as to amount and arrangement, the statement made in the preface that certain of his English friends wondered where he could possibly find material enough to fill six lectures will be fully appreciated. It would in fact be almost impossible to confine within the limits of a precise statement the loosely floating, vaguely held ideas of the ancient Celts and their literature which, in default of exact information, are still current in the minds of educated Englishmen. Some fail to distinguish between Celtic and Norse; others—and these are of the subtler kind—have their suspicions of the political tendency of the study of Irish origins, in much the same way as many 'serious churchmen' are alarmed at the intrusion of unsanctified criticism into regions long comfortably wrapped in the mists of tradition. But even those, *qui severiores Musas colunt*, whose wanderings in search—it may be—of the picturesque have led them to the essays of M. Renan and the late lamented Matthew Arnold, will find an abundance of what is indeed rich and strange in the monumental work of Professor Rhys. Britain for the Britons: and, if the attention of the younger generation of students be only aroused in time, we may yet succeed in keeping the first place in the band of schools who are exploring the antiquities of our own islands. For there seems to be no clear reason either of patriotism or of sentiment why we should continue to allow the negligence with which we are too often reproached, to feed, as it were, the already swollen stream of German chauvinism.

The earliest form of Celtic belief, of which any account has reached us, is the religion of the inhabitants of ancient Gaul. In our survey of this region we have two kinds of information to guide us—the statements of ancient authors, and the testimony, in many cases still obscure and partial, of inscriptions. In the former class the account left us by Julius Cæsar of the Gaulish pantheon is the most important piece of evidence which we possess. The situation of the observer was uniquely favorable. With the practiced eye of a supreme pontiff he surveyed the forms of the Gaulish religion under the direction of one of its own ministers, at a time when, the adoption of the Roman fashion having scarcely begun, it could still be studied in its native dress.

Mercury figures in Cæsar's account as the great god of the Gauls. After him come Apollo, Mars, Jupiter, and Minerva; and the only difference between the Gaulish conception of these divinities and that with which we are familiar in Roman mythology seems to lie in the central and commanding position assigned to Mercury; for, as described by Cæsar, the Gaulish gods possess the same attributes and discharge the same functions as their namesakes of the Roman pan-

theon. But at this point the question arises to what extent does the evidence of existing inscriptions confirm or correct the account of Cæsar. Upon this question Professor Rhys has brought to bear inexhaustible ingenuity and comprehensive learning, and the result of his investigation forms the subject of the first lecture.

In estimating the value of the monuments, two circumstances must not be overlooked. Of those which remain few are in the native language; while all belong to the period of the Roman supremacy in Gaul, when the Celtic deities, if they retained the national style in the matter of outward appearance, had in all cases assumed Roman names, as a sign of their adoption into the central pantheon.

In the case of Mercury the evidence furnished us by inscriptions, scanty though it be, is yet such as to confirm in its main features the account of Cæsar. The epithet *Artaios*, which is read on a stone found near Beaucaumont in the department of the Isère, is connected by Professor Rhys with such words as the Welsh *ar*, 'plough-land,' and interpreted in the sense of the Latin *cultor*. *Mercurius Artaios* would thus be the same as the *Mercurius Cultor* of an extant inscription from Württemberg, from which identity we can gather that the ancient Celts regarded Mercury as the patron of agriculture. In another inscription he appears without a name simply as the inventor of roads and paths; but by far the fullest and most picturesque account of the Gaulish Mercury which has come down to us is from the pen of Lucian, who identifies a god called by the Celts Ogmios with Heracles. Now it is plain from his description of a picture of this Ogmios that no Heracles in the Greek sense was intended; for, though equipped like Heracles with bow and club, the Gaulish god was in other respects so strangely represented as to suggest the idea that the artist had intended by this means to insult the gods of the Greeks and Heracles in particular. A very old man, bald and with the brown, weather-beaten complexion of an ancient mariner,—such was the form given to Heracles by the irreverence and audacity of the Celts. But even this was not the strangest part of the picture; for there was drawn a crowd of men bound by their ears with slender cords, of which the other ends were attached to the tongue of Heracles. In this way he was drawing the crowd after him, which followed eagerly like men unwilling to be set free. Such a picture as this would naturally shock Lucian with his Greek notions of propriety in the matter of artistic presentation; but a knowing Gaul who stood by, observing his astonishment and disgust, volunteered an explanation:

"We Celts," he said, "do not consider the power of speech to be Hermes, as you Greeks do, but we represent it by means of Heracles, because he is much stronger than Hermes. Nor should



you wonder at his being represented as an old man, for the power of words is wont to show its perfection in the aged. So if this old man Heracles, the power of speech, draws men after him, tied to his tongue by their ears, you have no reason to wonder, as you must be aware of the close connection between the ears and the tongue. In a word, we Celts are of opinion that Heracles himself performed everything by the power of words, as he was a wise fellow, and that most of his compulsion was effected by persuasion."

The value for our present purpose of this lively anecdote lies in the word Ogmios and the association of the god thus named with speech and the power of it. For if we seek the equivalents of Ogmios in the language of the Celts of the British Islands, we are led along the lines of phonetic corruption and decay to the Irish *Ogma* and the modern Welsh *oyyd*. The meaning of the latter "in the earliest passages where it occurs, is not easy to fix; but that of 'one skilled or versed in anything, a teacher or leader,' would suit them all. Later, the duties of an 'oyyd' were said to be 'to improve and multiply knowledge'; and it is now the name of one of the three kinds of graduates or professors recognized by the Eistedvod, the other two being bards and druids." In Irish, however, Ogma is the name of an important personage, champion of the Tuatha Dé Danann, and the legendary inventor of the Ogam alphabet. Popular etymology derives Ogam from Ogma, which is impossible; so we must conclude that the contrary relation connects the two forms, and that Ogma took his name from an important attribute or function expressed by the word *Ogam*. Now, as it is improbable that the Celts were acquainted with writing at the time when Ogmios was first so called, it follows that spoken rather than written words will yield the clue to the original meaning of the connection. And, if we assume that *Ogam* denoted fluent speech, a stream of words, we have an explanation of the character and title of the god in complete harmony with the picture described by Lucian as that of an old man eloquent.

Apollo figures in Caesar's list not as the sun-god, but simply as the healer,—a description which is too narrow, as it excludes several divinities who may justly be regarded as sun-gods, and who appear in the monuments in the likeness of Apollo. Of the native names or epithets borne by this divinity the most important were Maponos, Grannos, and Toutiorix. The explanation of Maponos can easily be found. "It is the same word as the old Welsh *mapon*, now *mabon*, 'boy or male child,' which occurs, for example, in a Welsh poem in the book of Taliessin, a manuscript of the thirteenth century." Hence it seems to follow that the deity worshipped by the Celts under this title was regarded as a child—a conclusion which is curiously confirmed by the evidence of inscriptions from the remote province of Dacia. For instance, in *Deus Bonus Puer Posphorus Apollo Pythius*, the epithet *bonus*

*puer* is regarded by Professor Rhys as standing for the Maponos in question. On the meaning of the second epithet, Grannos, we can throw some light by comparing it with the cognate forms, in Sanskrit *ghr̥na* and *ghr̥ni*, in English, *gleam*. As applied to the Gaulish Apollo, it must have had the force of an adjective conveying much the same meaning as the *posphorus* of the Dacian inscription, between the terms of which and the native names of the god another point of contact is exhibited in Mogounus, a title found ascribed to Apollo Grannus in an inscription from the neighborhood of Horburg in the Haut-Rhin. Professor Rhys's philological examination of the word Mogounus is too long to be reproduced here. The conclusion, however, to which we are led through a long series of comparisons is, that underlying Mogounus we have the same idea as that which was established for Maponos, namely boy or youth; so that *Apollo Grannus Mogounus* would be exactly equivalent to *Puer Posphorus Apollo*.

The third epithet, Toutiorix, is found—in the dative case—in a single inscription, *Apollini Toutiorigi*, at Wiesbaden. But the interest attaching to the word is largely due to the fact, that, in its Latinized German form Theodoricus, we are familiar with it as the name of the great king of the Ostrogoths, who, in the fifth century, A. D., conquered Italy, and established the Gothic Kingdom of Ravenna. Now, the High German form corresponding to Toutiorix is Dietrich; and Dietrich von Bern is no other than Toutiorix or Theodoricus of Verona, a point where, as we shall see, the streams of mythology and history meet and blend. For with regard to the conqueror himself:

"It is found that with his history so much unhistorical matter has been incorporated, that modern authors usually distinguish between the historical man as Theodoric the Great, and a mythical personage to whom the name Dietrich von Bern is left. Many attempts have been made to disentangle the legends from the historical portions of the story of the Teutonic conqueror; but it has never been satisfactorily shown why such and such mythic stories should have attached themselves to this particular man. The inscription alluded to yields the key: the historical Teuton bore one of the names of the Gaulish Apollo, and the eventual confusion of myth and history was thereby made easy. This is borne out by the general similarity between the mythic statements made about Dietrich and what is known in Celtic literature about Celtic sun-gods. Among other things may be mentioned his riding into the sea after an enemy, who was only enabled to escape by the intervention of a mermaid, who was his ancestress. As one of Dietrich's solar peculiarities may probably be mentioned his breathing fire whenever he was made angry, and like more than one of the Celtic sun-heroes, he is made to fight with giants and all manner of wild beasts. It has puzzled historians that Theodoric, the grandest figure in the history of the migration of the Teutonic peoples, should appear in the *Nibelungen Lied*, not as a great king and conqueror on his own account, but merely as a faithful squire of the terrible Attila, whose empire had in fact crumbled into dust before the birth of Theodoric. But from the mythological point of view, the subordinate position ascribed to Theodoric is quite correct, and



it serves to show how profoundly the man's history has been influenced by the legend of the Celtic god."

The Celtic Mars is presented to us by inscriptions under many names, of which, perhaps, the most important in its bearing upon Comparative Mythology is *Camulos*. It occurs in the name *Camulodunon* (stronghold of *Camulos*), and is doubtless to be referred to the same root as the Old Saxon *himil*, German *himmel*. This association with, or derivation from, the sky reminds us at once not only of the Indian *Varuna*, but of the Greek *Zeus* and the Italian *Jove*; though the fact that the Romans recognized in *Camulos* not their own sky-god, but their god of war, reveals what at first sight seems to be a marked difference, whether original or developed, between the two pantheons; while the Teutonic *Tiu*—the same etymologically as *Zeus* and *Jove*, and like *Camulos*, god of war—marks, as it were, a point in which the Gaulish and the Roman conceptions meet. In *Camulos*, therefore, "we have discovered the Jupiter of the Celts, and found that Gaulish theology ascribed to him the discharge of functions which the Romans would have regarded as more properly belonging to Mars."

With regard to the god, whom *Cæsar*, on the strength of resemblances which it is now difficult to trace or to restore, identified with Jupiter, Professor Rhys remarks: "I cannot help regarding the Gaulish god whom he equated with Jupiter as far from possessing the importance or rank which that equation would suggest; nor is it improbable that the phenomenon of thunder was treated as one of the forms of his activity." This suggestion in the hands of Professor Rhys forms the starting-point of an investigation which we have not space to follow in detail: we can only call attention to its most important result, the discovery of a Gaulish thunderer, whose name—if the reading *Tanaro* of the Ashmolean inscription can be trusted—shows the same root, and bears the same meaning as the English word *thunder*, German *donner*, Norse *thórr*. No less important and instructive are the steps by which our author—whose mastery is nowhere more conspicuous than in the handling of phonological details—gradually ascends to the form *Eus* (Lucan's *Hesus*) as the name or title of this divinity, Thor's counterpart among the Gaulish thunderers; but, before leaving the Gaulish pantheon, we must pass on to consider briefly the gods of that other or under-world, with which the ancient Celts seemed to their neighbors to be strangely familiar.

Though we find no mention of *Dis* in *Cæsar*'s list, yet we learn from the same authority in another place that the Gauls claimed to be descended from *Dis Pater*, and that to this fact of relationship was due their strange custom of measuring time by nights rather than by days, and, in other respects, of giving

darkness the precedence over light. Ancient testimony being thus vague and incomplete, it is to the labors of modern—chiefly French—archæologists that we owe the discovery not only of the name of this dark divinity, but also of the outward form under which his votaries conceived him. On a Gallo-Roman altar dug up at Paris, and explained, as to the device and inscription it bears, by M. Mowat, we read the name *Cernunnos*, underneath which "is to be seen, bearded and clothed, a central figure whose forehead is adorned with the two horns of a stag, from each of which hangs a torque. The monument is unfortunately in a bad state of preservation; but the head and shoulders are on such a large scale as compared with the other figures on the same block, that the god cannot have been represented as standing or even as sitting on a raised seat: in fact there is no alternative but to suppose, with M. Mowat, that the god was seated cross-legged on the ground, like Buddha."

Two features of this quaint description stand out as being probably of mythological significance, the horns of the god and his sitting, or rather squatting, posture. To the horns we can at once detect an allusion in the etymology of his name; for, in the words of Professor Rhys, "the form *Cernunnos* and the Latinized one *Cernenus* contain the common stem *cern*, which may be assumed to be of the same origin as the native words for the Gaulish horn or trumpet, variously given by Greek writers as *κίρνον* and *κίρνος*; the Welsh and Irish form is *corn*, of the same etymology and meaning as the Latin *cornu*, English *horn*." In the second place, if we admit, with M. Mowat, the squatting posture, we can connect the figure on the Paris altar with certain well known representations of a horned squatting divinity such as those found at Rheims, Saintes, and Vendœuvres-en-Brenne. Applying the data furnished by these monuments to the question of *Cernunnos*, Professor Rhys concludes that the latter was god of the dead or of the under world, and that he was also held to be lord of riches, especially the metallic wealth hidden in the bowels of the earth. At this point the etymology of the words *Pluto* and *Dis* is not without significance, the former being derived from *πλοῦτος*, 'wealth,' the latter being, as it is supposed, a contraction of *divēs*, 'wealthy.' The question, however, what was the exact mythological significance of the undignified attitude and grotesque appendage of *Cernunnos* still presses for an answer.

M. Mowat, relying on the testimony of ancient authors, would explain the attitude as one characteristic of the Gauls themselves, and assigned to *Cernunnos* as the god from whom they claimed descent, the Gaulish deity *par excellence*; while the horns appear to the same authority to be simply a form of the cornucopia or emblem of plenty. M. Mowat seems therefore to assign



the figure in question to the period when Roman forms and symbols had been almost universally adopted by Gaulish artists; while, on the other hand, Professor Rhys in his search for a solution transports us backward through the neighboring region of Teutonic mythology to the far away time before the "Aryan separation."

At the very threshold, then, of the Teutonic pantheon, we come upon an ancient god, whom we find in a subordinate, not to say menial, position, but who before the rise of new divinities had probably seen better days. He was called Heimdal, and out of the scattered and fragmentary allusions to him in Norse literature it is difficult to restore a complete and intelligible picture. Two of his attributes, however, are of importance in our present investigation. He is described as having golden teeth, and as the porter or watchman of the gods. Besides, it is not irrelevant to note that all men without distinction of rank—kings, earls, and thralls—are descended from him.

Now, as the notion of the gods dwelling together in one house with a porter at the gate is a comparatively recent one, we may assume that Heimdal's original occupation was to sit at the entrance of the nether world—a theory with which his golden teeth symbolizing the lordship of wealth or riches would be in perfect harmony. We have, therefore, over against Cernunnos a squatting divinity, lord of wealth, father of all men, and god of the dead; so, if we can trace an allusion to horns in the accounts which survive of him, we shall complete the parallel.

Now it is a curious fact that the two other names borne by Heimdal—Hallinskidi and Heimdali—are both said to mean a ram, from which we may perhaps infer that the god was originally represented under the form of a ram; but the fact that a man's head in Norse poetry is occasionally styled 'Heimdal's sword,' is more curious still, for it clearly points to some famous occasion on which Heimdal fought with a head either his own or another; "but as it is not called a club or hammer, but *hjör*, which meant a sword, also a missile weapon, and even a shield, it is highly probable that the original myth represented him as fighting with no head but his own, the horns on which served him for sword, spear, and shield all at once."

If, therefore, our comparisons be valid, we have established the important conclusion that Gauls and Teutons recognized the god of the dead under the same peculiar form; but the further question—out of what did this conception itself arise,—it is impossible to answer in the present state of our knowledge. Professor Rhys's suggestion, that in the horned divinity of the dead we may perhaps see a relic or descendant of a primeval elk, supporting the base and underlying the substance of the world, is ingenious, and may in

course of time prove fruitful; but the most that can now be said of it is that it is not impossible.

Nothing is more curious and remarkable in the strange jumble of reason and prejudice, fashion and sentiment, called modern thought, than the large and increasing proportion which the religious ingredients bear to the other elements of the mixture. There are persons, who, not content with conjuring from their graves in creed and system the ghosts of the past, must construct by anticipation the religion of the future. In fact, so absorbed are many of us in the contemplation either of what has not yet come or of what will never come again, that the right of what is actually with us—whatever it may be—to analysis and explanation is too readily forgotten. But in this sphere, too, we must protest against invidious distinctions. Of Buddhism, of late years, we have had abundance in all its varieties and from all quarters—so much so that the tide of fashion, turned by the force of an inevitable reaction, has begun to ebb away. With the Norse gods, moreover, we are tolerably familiar, for, in spite of their rough exterior and their savage ways, they have invaded the polite regions of contemporary verse; while their close relations and near neighbors the gods of the Celts, have hitherto suffered from a dishonoring neglect. It is therefore with all the more gratitude that we welcome the learned attempts of Professor Rhys to divest, as it were, of their "purple shrouds" these gods so long buried and forgotten.

#### INTRODUCTION TO A POEM.

LOUIS BELROSE, JR.

When the sad wind, from wandering round the sea  
Or through the regions of eternal snow,  
Tells to the harp its endless tale of woe,  
The chords are moved responsive and set free

A vague and shadowy sound of sympathy.  
Not in skilled measure does their grief o'erflow,  
But artless plaints that dreary-long and low  
Like waves of sorrow die upon the lea.—

Such my poor song; a wind of doleful sighs  
That came distinct above the murmuring  
Of nature's millions, born to agonize,

Swept o'er my heart. O ye, who've heard this thing  
And felt the tears of pity in your eyes,  
Attend my lay: in pity's name I sing.

#### BOOK REVIEWS.

DOCTOR BEN. *Orlando Witherspoon*. Boston: Ticknor & Co.

This is one of the late issues in Ticknor's paper series, a story dealing with Canadian life and character, and adding an unusual element of interest in the character of the unfortunate hero Ben Hallins, whom a severe accident, followed by a long period of illness, had temporarily deprived of the use of his mental faculties. In this study of abnormal mental traits and activities, and the equally faithful description of the character of the villainy-plotting Macral, the main interest of the story lies. C. P. W.



A SHORT HISTORY OF THE WAR OF SECESSION. *Russell Johnson*.  
Boston: Ticknor & Co.

The writer of this excellent and useful work explains in the preface that his first intention was to write a long and full history of the war of the rebellion; but having an opportunity to put his work into the form of thirty articles for the *Examiner* he changed his purpose, being convinced that there was greater need of the shorter history than of a more compendious work. Mr. Johnson's book is written in a style attractive both to young and old, philosophical in tone, by which is meant that the work deals not only with the events and outward cause of the war, but with its inward causes, of clear and concise narrative form, and an admirable general review of the subject.

C. F. W.

Mr. S. Burns Weston in *The Ethical Record* (Vol. I, No. 3) opposes the Utilitarian doctrine, according to which the morally good is explained to be the useful or that which produces happiness.

Mr. Weston says p. 82-83: "The late notorious Jacob Sharp had the boldness to say, that, because he was working for what would be a public good, therefore, the fact that he bribed the New York aldermen should be excused, and not be regarded as either a criminal or an immoral act. And one of the most influential of the New York journals stated that if he had boldly confessed what he had done, when brought before the courts, and declared that he found bribery to be necessary in order to secure a needed public benefit, the public would at least have shown him great indulgence. The idea that immoral means to secure great public benefits are allowable is far too prevalent. It is far better that we do without such benefits than that they be bought at that price."

Mr. Weston substitutes the idea of the perfect as the final aim of life, but every philosophical or religious substantiation of the ethical ideal is repudiated. The idea of perfection ranges morally higher than utilitarianism, but it is too general and too vague to have any definite meaning. Man's ethical ideal is entirely dependent upon his conception of himself, his purpose of life, and his relation to mankind as well as to the universe. Mr. Weston's proposition to study man without taking into consideration the world which has produced him and to constitute man's "final aim of life" by a positive exclusion of any theory of the universe in which man lives, appears to us an impossible task. "We may just as well square the circle or set out in search for the 'thing of itself.' All ethical systems, which lack the basis of a conception of the world (be it called religious or philosophic) are a delusion. It is true that the morals of men are sometimes better, sometimes worse, than the convictions they profess, but as a rule a world despising creed will produce asceticism while an ennobling faith will inspire us with an elevating morality. Ethical systems that are scientifically and philosophically well established will exercise a most beneficial and powerful influence. [For instance Kant's ethics are based on his Transcendental Philosophy and propounded with classical simplicity in his *Grundlegung zur Metaphysik der Sitten*.] But an ethical doctrine which professes to be ethics absolute will remain a shadowy air castle without substantial reality.

MY PREDECESSORS. *F. Max Müller*.

Prof. F. Max Müller found it necessary to write an answer to the numerous critics of his book, "The Science of Thought." "I was not prepared," he says in the *Contemporary Review*, p. 474, in an essay, entitled "My Predecessors," "to find nearly all my critics under the impression that this theory of the identity of thought and language was quite a novel theory, something quite unheard-of—in fact, a mere paradox. This showed the same want of historical knowledge and tact which surprised so many philosophers in Germany and France at the time of the first appearance of Darwin's book 'On the Origin of Species.' Most of the leading reviews in England seemed to consider the theory of evolution as something quite novel, as a kind of scientific heresy, and they held Darwin personally responsible for it, whether for good or for

evil. Darwin himself had at last to protest against this misapprehension, to point out the long succession of the advocates of evolution, from Lucretius to Lamarck and Oken, and to claim for himself what he really cared for, a legitimate place in the historical evolution of the theory of evolution. \* \* Of course, such an expression as identity of thought and language can be cavilled at. If Kant is right, no two things in space and time can ever be 'identical, and if people really take identical in that sense the sooner the word is altogether superseded the better. When we say that language and thought are identical, we mean that they are two names of the same thing under two aspects. There is a very useful term in Sanskrit philosophy, 'apṛithagbhāva' ('the not being able to exist apart'), and it is this, the impossibility of thought existing apart from language, or language from thought, which we mean when we call the two identical. We can distinguish for our own purposes, and these purposes are perfectly legitimate, between the sound and the meaning of a word, just as we can distinguish between the pitch and the timbre of our voice. But though we can distinguish, we cannot separate the two. \* \* We can certainly distinguish the sound of a word from its meaning, but we must not expect to meet with meanings walking about in broad daylight as disembodied ghosts, or with sounds floating through the air, like so many Undines in search of a soul. The two were not two, but were one from the beginning, and the *πρωτον ψευδος* lies in this attempted divorce between sound and meaning.

"All our words are conceptual, all our concepts are verbal."

\* \* The consequences which follow by necessity from this recognition of the identity of thought and language, and which I was anxious to put forward as strongly as possible in my "Science of Thought," may, no doubt, have startled some philosophers, whose chief strength lies in the undefined use of words. But that theory itself could never have startled a careful student of the history of philosophy. It is a very old friend with a new face, and had a right to expect a different reception. \* \* If we use *thought* promiscuously for every kind of mental process, it stands to reason that to say that thought is impossible without language would be absurd. To feel pain and pleasure is an inward mental process, to see and hear are inward mental processes; to stare at the images of present and past events, to build castles in the air, to feed on such stuff as dreams are made of—all this might certainly be brought under the general category of mental activity. For ordinary purposes we need not be too particular about language, and, if people like to call all this *thinking*, why should we object? I, myself, when there can be no misunderstanding, use *thought* in that general sense, and use the word *mind* for all that is going on within us, whether sensation, perception, conception, or naming. I did not, therefore, put on my title-page, "No thought without language," but "No reason without language; and I did so after having defined reason as the addition and subtraction \* of conceptual words.

"Much astronomical observation was required before people could persuade themselves that their evening star was the same as their morning-star, and much linguistic observation will have to be performed before anybody will see clearly that our language is really our thought and our thought our language."

#### NOTES.

The appearance in pamphlet form of M. Binet's articles upon the Psychic Life of Micro-Organisms, will be delayed in order to introduce into the work some additional observations, with a preface by M. Binet, and to procure additional cuts from Paris. We shall publish in the meantime an interesting chapter upon the "Physiological Function of the Nucleus" by the same author, translated from the *Revue Philosophique*.

\* We prefer the expressions "combination and separation" in place of "addition and subtraction."



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

## CHAPTER XXV.—Continued.

Thus did the passionate Laura chafe in her attic-room, and again was her paper moistened by bitter tears, as she sought consolation in heroic verses, and called upon the foreign gods of the Doctor to take the field against the pranks of Spitehahn.

Glorious Indra and all ye divinities shining in heaven,  
That have so often conferred blessings on races of men,  
Haste in rescue to us, for great misfortune doth threaten.  
Ominous shadows of night darken our peaceable home,  
Banish the child from the father; while flat on the door-step outspawling,  
Growleth with vengeful intent fiercely th' insidious cur.

The peace was disturbed not only for the neighbors of the Park street, but also for the young Prince, at whose fête the trouble had begun.

The Prince was detained some weeks from the city. After his return, he lived in the quiet retirement that the duties of mourning imposed upon him. Lectures in his room were again resumed, but his place at Ilse's tea-table remained empty.

On the day when the University prizes were distributed, the students made a great torchlight procession to their Rector's house. The flaming lights waved in the old streets; the fanfares resounded, in the midst of which the lusty voices of the singing students might be heard; gables and balconies were lighted in colored splendor; the marshals swung their weapons gaily, and the torch-bearers scattered the sparks among the thronging crowds of spectators. The procession turned into the street towards the valley; it stopped before the house of Mr. Hummel. Again there was music and singing; a deputation solemnly crossed the threshold. Hummel looked proudly on the long stream of red lights which flickered about and lighted up his house. The whole honor was intended for his house alone, though he could not prevent the glare and smoke from illuminating the enemies' roof, also.

Upstairs some of the rector's most intimate friends were assembled; he received the leaders of the students in his room, and there were speeches and replies. While those assembled were crowding nearer to listen to the speech-making, the door of Ilse's room gently opened, and the Prince entered. Ilse hastened to meet him, but he began, without greeting:

"I have come to-day to bid you farewell. What I foresaw has happened. I have received orders to return to my father. To-morrow I and my attendant will take formal leave of the Rector and yourself, but I wished first to see you for a moment; and, now that I stand before you, I cannot express the feelings that prompted me to come. I thank you for all your kindness. I beg of you not to forget me. It is you who

have made the city so dear to me. It is you who make it hard for me to go away."

He spoke these words so softly that it seemed only as if a breath had passed into Ilse's ear; and he did not await her answer, but left the room as quickly as he came into it.

Outside, in the open place by the common, the students threw their torches in a great heap; the red flame rose high in the air, and the gray smoke encircled the tops of the trees; it rolled over the houses and crept through the open windows, and stifled the breath. The flame became lower, and a thin smoke ascended from the dying embers. It had been a rapid, brilliant glow, a fleeting fire, now extinguished, and only smoke and ashes remained. But Ilse was still standing by her window, and looking sorrowfully out upon the empty place.

## CHAPTER XXVI.

## THE DRAMA.

"He was a tyrant," exclaimed Laura, "and she was right not to obey him."

"He did his duty harshly, and she also," replied Ilse.

"He was a cross-grained, narrow-minded fellow, who was at last humbled; but she was a noble heroine, who cast from her all that was most dear on earth in order to fulfill her highest obligations," said Laura.

"He acted under the impulse of his nature, as she did according to hers. Hers was the stronger character, and she went victoriously to death. The burden of his deed crushed him during life," rejoined Ilse.

The characters which the ladies were discussing were Antigone and Creon.

The Professor had one autumn evening laid the tragedies of Sophocles on his wife's table. "It is time that you should learn to appreciate the greatest poets of antiquity in their works." He read them aloud and explained them. The lofty forms of the Attic stage hovered in the peaceful atmosphere of the German home. Ilse heard around her curses and heart-breaking lamentations, she saw a dark fatality impending over men of the noblest feeling and iron will; she felt the storm of passion raging in powerful souls, and heard, amidst the cry of revenge and despair, the soft chords of soul-stirring pathos sounding with irresistible magic.

The time had indeed come when Ilse could comprehend and enter into the feelings and fate of others than herself.

The bright rays of the midday sun do not always shine upon the paths of man. Not with the eye alone does he seek his way amid the shadows of night, but he hearkens, too, to the secret voices within his breast. From the battle of clashing duties, from the irresisti-

\* Translation copyrighted.



ble impulse of passion, it is not with most men a careful thought or a wise adage that saves or ruins; it is the quick resolve which breaks forth from within like an uncontrollable impulse of nature and which is yet produced by the compulsion of their whole past lives—by all that man knows and believes, by all that he has suffered and done. What forces us to the good or the bad in the sombre hours of trial, people call character, and the changing steps of the wayfarer through life as he seeks his way amid difficulty and danger, the spectator at the play calls dramatic movement.

He only who has wandered amid the flitting shadows of night, and has seriously listened to the secret admonitions of his inmost soul, can fully understand the spirit of others who, in a similar position, have sought to extricate themselves from an intricate labyrinth, and have found safety or met destruction.

Ilse, too, had experienced hours of fleeting terrors; she also had trembled as to whether she had pursued the right path.

The seventh tragedy of the Greek poet had been read; the boldest representation of bitter passion and bloody revenge. Ilse sat mute and horrified at the outbreak of fearful hatred from the heart of Electra. Then her husband, in order to recall her to less anxious thoughts, began: "Now you have heard all that remains to us of the art and power of a wonderful poetical mind, and you must tell me which of his characters has most attracted you."

"If you mean that in which the power of his poetry has most impressed me, it is always the newest form which has appeared to me the greatest, and to-day it is the monstrous conception of Electra. But if you ask which has pleased me most—"

"The gentle Ismene?" interrupted the Professor, laughing.

Ilse shook her head. "No, it is the valiant son of Achilles. At first he was tempted to yield to the cunning counsel of his confederate, and do violence to an unfortunate fellow-creature; but after a long struggle his noble nature conquers: he sees that it will be wrong, and he asserts his manhood by refusing."

The Professor closed the book, and looked with astonishment at his wife.

"There is," continued Ilse, "in the greatest characters of your Greek poet a stern rigidity that frightens me. Something is wanting in all to make them like us; they do not doubt as we do, nor struggle; even when they do right, their greatness consists in their immovable determination to do something fearful, or rigid persistence in stemming a terrible fate. But while we expect that the strong man shall act powerfully, according to his nature, either for good or evil, he does not gain our full human sympathy, unless we

have the certainty that he experiences an inward struggle such as we may ourselves feel."

"Such as we may ourselves feel?" asked the Professor, seriously, laying aside the book. "How do you come by this experience? Have you, Ilse, some secret from your husband?"

Ilse rose and looked at him with dismay.

But the Professor continued, cheerfully: "I will first tell you why I ask, and what I would like to know from you. When I brought you from your country-home you were, in spite of your deep German feeling, in many respects just such as we like to picture to ourselves Nausicaa and Penelope. You freely received impressions from the world around you; you stood sure and strong in a firmly-bound sphere of right and duty; with childlike trust you gathered from the moral habits of your circle, and from Holy Scripture, your standard of judgment and conduct. Your love for me, and contact with other souls, and the insight into a new sphere of knowledge, awakened in your heart passionate vibrations; uncertainty came, and then doubt; new thoughts struggled against old impressions, the demands of your new life against the tenor of your maiden years. You were for months more unhappy than I had any idea of. But now, when I have been rejoicing in your cheerful repose of mind, I find you have acquired a knowledge of human nature that astonishes me. I have often lately seen, with secret pleasure, how warmly you have sympathized with, and how mildly you have judged, the characters of the drama. I had expected that their hard and monstrous fate would have been repulsive to you, and that you would have felt rapid transitions from tenderness to aversion. But you have sympathy with the dark forms as well as with the bright, as if your soul had begun to anticipate that in one's own life, good and evil, blessing and curse, might be associated, and as if you had yourself experienced that man has not to follow an outward moral law alone, however exalted its origin, but that he may at some period be compelled to seek for some other law in the depths of his own soul. But such an insight men can only attain when they themselves experience danger and trouble. It is improbable that this should have been the case with you, unless you have gone through some experience to which I have been a stranger. I do not wish to urge your confidence; I know what trust I can repose in you; but if you think fit, I would gladly know what has given rise to this sensitive feeling for the secret struggles of men who are hurried along by a tragic fate."

Ilse seized him by the hand and drew him into her room. "It was on this spot," she exclaimed, "a stranger asked me whether he should expose himself to the danger of death for the sake of his honor, or



whether he should expose another in his place. I had given him a right to ask such a question, for I had before spoken to him of his life with greater frankness than was prudent for a careful woman. I stood and struggled against the question that he put to me, but I could not refuse to answer; and, Felix, to tell you the truth, I did not wish to do so. I gave him counsel which might have brought him to a bloody end. I gave him that advice secretly, and I became entangled in a fatal web from which I could not extricate myself. I thought of you, but I did not dare to tell you, as you must either have been unfaithful to the duties of your office, or you must for ever have wounded the honorable feelings of another. I questioned our holy teachings: they told me only that my advice was sinful. I was unhappy, Felix, that I had come into this position, but still more unhappy that neither you nor the teachings of my faith could help me out of it. It was no merit of mine that things turned out better than I feared they would. Since that I have known, Felix, what struggles of conscience are; now you know the only secret that I have ever had from you. If I did wrong, judge me mildly, for by all that is sacred I could not have done otherwise."

"And the Prince?" asked her husband, softly.

"He is a good and gentle soul, an immature man, while I was your wife. With him there was no doubt and no struggle."

"I know enough, you earnest, high-minded woman," said the Professor, "I see that, as against your knowledge of life, I can now pack up my books. For of what value is the teaching of books, however good they may be, in comparison to that of life. A foolish student's duel, in which you were the invisible adviser, has done more, perhaps to form your mind, than my prudent words would have done in the course of years. Be of good courage, Lady Ilse of Bielstein; whatever fate may still await us, I know now that you are fitted for inward struggles, and we need not be solicitous about dangers from without. For, however much we human beings may be troubled and agitated here on earth, he who has once learnt to know himself so well that he is able to read the secret writing of other souls, is well protected against the temptations of the world."

What the German scholar said as he now so warmly clasped his wife in his arms was not amiss, only it is a pity that we have no certainty of reading the secrets of other souls; and it is a pity that the greatest knowledge of the secret writing in the souls of others cannot serve us in warding off the storms of our own passions.

The Chamberlain, who now acted as marshal to the Hereditary Prince, was holding a conference with his father upon the concerns of his office. Among other things there was also the question of promoting

Krüger, of butter-machine fame, to higher honors and, what was of no less importance, to the full salary due the valet of an Hereditary Prince. Contrary to expectations the Sovereign was ready to agree to his proposals, and the Chamberlain, pleased at the gracious humor of his master, was about to take leave, when the Sovereign stopped him by the kind remark, "Your sister Malwine, looks ill; does she dance too much? You should take care of her delicate health; nothing would be more injurious to such a constitution than an early marriage. I hope to see her pleasant countenance at Court for a long time yet."

Now Fräulein Malwine was secretly betrothed to one of the Prince's officers; it was known at Court and in the city, but the betrothed were poor, and the consent of the Sovereign was necessary for their union. In order to obtain this it was advisable to await a favorable opportunity. Therefore the Chamberlain was alarmed at his master's words; he perceived a secret threat in them, and while he thanked him for his gracious sympathy, his face betrayed his dismay.

After the Sovereign, by this short turn of the peg, had tuned the strings of his instrument, he continued, with indifference: "If you have a quarter of an hour to spare, I wish you to accompany me into the cabinet of antiquities."

They passed through corridors and halls into a distant part of the castle, where, on an upper floor, a large collection of old coins, carved stones, and other minor relics of Greek and Roman times, were arranged. Many generations of rulers had contributed to it, but the greatest part had been brought by the Sovereign himself when returning from his travels. He had, in former years, taken great interest in the arrangement of these things, and spent large sums in purchasing others; but gradually this fancy had passed off, and for years the feather brush of the curator had only removed the dust for occasional strangers who had happened accidentally to hear of this almost unknown collection, and had honored it with a visit.

The Chamberlain, therefore accompanied his master with the feeling that this unusual idea signified something; and he felt a gloomy anticipation that what was impending boded no good. The Sovereign returned with a nod the low obeisance of the dilapidated curator; he passed in review the long rows of rooms, had some cases opened for him, took in his hand the written catalogue, and examined carefully the gold coins of Alexander the Great and his successors, and inspected a collection of old glass vessels and vases, in which the artistic work of the ancient glass-cutters was particularly striking. Then he asked for the strangers' book, in which the names of the visitors were recorded.

(To be continued.)



STUDIES OF HOLLAND.—By Edwin D. Mead.  
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A Memorial Address by Frederic May  
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cially instructive and elucidative. In Nos. 58, 59, and  
60, Mr. William M. Salter advances a series of criti-  
cal remarks, which are replied to in the same num-  
bers by the articles, "Causes and Natural Laws"  
(No. 50). "Is There Anything Unknowable in Cau-  
sation" (No. 59). "Is Nature Alive," and "The  
Stone's Fall" (No. 60). In No. 58, Mr. M. A.  
Griffen writes a letter upon the same subject. In  
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JAMES HERBIN.....In No. 56.

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pearance of substantiating certain Christian dog-  
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out the inconsistencies resulting from the further  
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tions several natural principles which were not ad-  
mitted into the analogy.

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MRS. EDNAH D. GRENEY. In Nos. 49 and 50.

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C. K. WHIPPLE

"Progressive Orthodoxy," by C. K. Whipple, in No. 25, is a very keen and rather sarcastic censure on "The American Board of Commissioners for Foreign Missions." The said "Board" declined to comply with the request of their missionaries to make a few changes in the plan of saving the savages. These innocents, it was experienced, object in an absurd benevolence to the plan of eternal damnation, so as to be lost for Christianity. Mr. Whipple, it seems, did not consider that the Board could not have acted otherwise, for it would have been an outright confession that the savages had converted the missionaries, a most illogical and very improper thing to do.

WILLIAM L. POTTER.

In the leading essay of No. 1, Mr. Potter discusses the question of the relation of individual existence to the aggregating power and well being of society. Nature in this matter should be our teacher, and the spinal world-plan of nature is the method of differentiation. It is a process of concentrating the forces of existence which is done through the process of self-preservation. This principle of selfishness means only, not an end. Without it there would be stagnation, but the individual organism does not exist for its own sake. Nature's aim is higher, broader, richer life. The end of individual existence is the common good, the general well-being, and here is where the law of ethics and the obligations of religion bear upon social problems. Individual self-interest and enterprise only furnish the rough materials for the meliorations which mark the progress of the higher civilization.



# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 64. (Vol. II.—38.)

CHICAGO, NOVEMBER 15, 1888.

Two Dollars per Year  
Single Copies, 10 cts.

## THE MARRIAGE PROBLEM.

BY E. D. COPE, PH. D.

Religion and Love are the two subjects on which it is most difficult to think or to speak rationally, or without prejudice. This is, because the personal interests which both involve, are of a sentimental or emotional nature; secondly, because the facts necessary to the understanding of both questions, are difficult to obtain. Sooner or later experience throws much light on the nature of the passion that expresses itself in marriage, but unfortunately for the inexperienced, such knowledge is for various reasons seldom available for their use, so that correct thinking on the subject has not advanced with the same rapidity as has been the case with many other questions. The fact is, that to-day our civilization is, in this direction, still imperfect, and, in my opinion, in many localities is little better than barbaric. It is barbarism of thought to be seen at both ends of the social scale; in the conventionally orderly, as well as in the socially depraved. But in the former class it is due, rather, to thoughtlessness, while in the latter class it has various causes.

All human institutions rest on a basis of natural law. They owe their existence, as well as their limitations, to unavoidable material conditions. In considering the problem of marriage, I will state first the natural conditions which define it. I will then discuss the various methods of carrying it into effect adopted by mankind. This part will be followed by a consideration of the future of the institution.

### I. THE FOUNDATION FACTS OF MARRIAGE.

In discussing this, as well as other aspects of the subject, I must first ask the indulgence of my readers, if I state many things which are common knowledge, for the sake of completeness. I will also observe, that in order to reach rational conclusions on the subject it is necessary that unreasoning prejudices must be laid aside by both sexes, even what one might call good prejudices, such as gallantry on the part of the man, and conventional reasons for action on the part of the woman.

Of course, the given factor in the subject is the existence of intersexual love. Its strength differs in different races and families; but people, in whom it is

not strong, certainly form a minority of the human race. This is likely to remain the case, since people of cold temperament do not, in the long run, propagate their kind so rapidly, as do others. Of the strength of the passion in both sexes every person of experience is fully aware. Two instances of recent occurrence may be cited. A woman was examined, in New York, as a witness against her husband, who had gouged out both of her eyes in fits of passion. She perjured herself in court by saying, that her shocking condition was due to accident, and was not the fault of the man! John L. Sullivan, the pugilist, lying at the point of death, receives a priest to administer to him the Roman Catholic sacrament of extreme unction. The priest demands, as a necessary condition, that he shall dismiss and discard the lady who attended him, who was his wife except in the absence of the necessary legal authorization. This Sullivan refused to do, preferring to take the (to him) risk of eternal perdition, rather, than turn away, even for a few hours, the woman he loved.

The evolutionist sees in the intersexual passion a mental outgrowth of the physical necessities involved in the function of reproduction. An analysis of the nature of this physiological necessity can only be entered into here very superficially. In non-sexual animals, at the bottom of the scale, the division of one individual into two, has been perhaps a simple rupture, owing to the incapacity of protoplasm to retain its continuity, after a certain bulk has been reached. Wherever there is consciousness, the accompanying strain would occasion pain, and the animal would use some effort to throw off the superfluous part of its substance, the result being a feeling of relief. With advancing complexity of organization this process, like all others, would become specialized, and certain cells only would be discharged as supernumerary and unnecessary to the functions of other parts. Thus reproduction early became a form of relief from a growing body or bodies which occasioned pain or discomfort while present. The origin of the male sex is as yet a total mystery; but the burden of reproduction came to be shared by him also, and it became necessary that he also should obtain relief from discomfort and pain by throwing off parts of his organism.

Whatever might have been the cause of the origin



of a male sex, its result is well understood. Reproduction by two sexes doubles the influences of heredity, and gives the offspring twice as many chances for variation in structure as is possible in reproduction by one sex. The male, moreover, being free from the disabilities and duties of maternity, has always had opportunity for more varied pursuits, and more continuous muscular and mental activity. He has been the hunter and the fighter in primitive society, and in civilization the organizer and the builder of machines, of houses, and of governmental systems. Some women imagine that all these things might have been done by women if they had only been permitted, or had had opportunity to do so, etc. But it is nature that has deprived them of the opportunity, and women's disabilities in these directions are not of human, but of natural origin.

The mutual service rendered by the sexes to each other is so great that the origin of their mutual interest is readily accounted for. Development of the mind has not rendered these services any the less effective, but it has extended the mutual interest to a higher plane. The affection which many of the lower animals display toward each other, as well as to men who give them pleasure, is greatly increased in the social relation of men by recognition of the mystery which surrounds it. The continued devotion of the sexes to separate functions in the social organism has been followed by their better adaptation to those functions and their increasingly greater difference of structural characters. Thus the sexes have become more and more useful, and more and more interesting, to each other. This diversity has distinctly increased among civilized men, as appears from the measurements of various parts of the body, notably of the skeleton, made by Broca, and others.

The intersex interest has an especial and important influence on human mental evolution. Man, like other animals, is lazy, unless stimulated by some urgent necessity. Hunger furnishes the usual goad, but man has had much time on his hands for occupation other than the obtaining of food. In the process of carrying out his various schemes of possession, of control, and of the conquest of nature in different directions, he has naturally come into frequent collision with his fellows. In all times, both ancient and modern, men have been rivals and antagonists in all fields. The stimulus to human development from this source has been compulsory. Men have either grown great under it, or have weakened and died. The struggle for existence is real, and the survivors are "fit"—for something. The relations of the sexes furnish the relief to this picture. So long as each sex has maintained its natural relations to the other, life has been worth living, and other kinds of fitness have been

effective in determining the survival of men. Love has stimulated men and women to good deeds and to good and useful lives; and as a stimulus to the mental faculties it has been second only in importance to the brute force of the struggle for the necessities of life and for power.

In order to retain the important influence of the sex-interest on human development, it is necessary that the sexes should retain their special characteristics and endeavor to maintain the highest degree of mutual utility. This result will be largely attained by natural processes; for a people, in whom the sexes should not easily co-operate, would be likely to diminish in population, or become absorbed by others. But, though nature may not be absolutely defeated, she may be so perverted and misused, as to cause a great deal of suffering to men. And this has occurred in many cases in the marriage relation. But in order to understand just what is practicable in this direction, we may take a glance at the natural characteristics of the sexes. It must be remembered, that in the attempt to generalize, from such a vast number of instances, one can only give averages, and cannot consider exceptions.

In brief, the struggle with nature has given the male of man superior muscular strength and superior rationality. Both have been forced upon him, the first by exertion, the second by experience. Necessity has also compelled him to undergo labor of body and of mind for long continued periods, so that his powers of endurance have been cultivated. Knowing the danger of physical conflict with his kind, he has learned to exercise a certain control of his manners and language. As regards women, their maternal instinct and the care of children have cultivated their affections rather than their rational faculties. Their occupations, although often laborious, have been generally less severe than those of men; hence results their inferior muscular strength, which is from two-thirds to one-half that of a man of the same race and condition. Their affectional nature has led women to cultivate the aesthetic and to excel in the adornment of their persons, and their homes. For natural reasons they have become more cleanly than man, more refined, and more attentive to small matters. The general effect of the preponderance of the emotional element in the female mind is to render it more liable to the temporary loss of the coördinate action of its parts, than in the man. This fact is illustrated in the greater ease with which women fall into tears, syncope, hysteria, etc. On the other hand, women learn many things with great facility, and are quite as skillful in the use of language as men.

The relative peculiarities of the sexes in men differ somewhat in different races. The male Chinaman is deficient in some of the external marks of his sex (as



beard, etc.), and it may be that his mind has a similar peculiarity. But when men resemble the women of higher races in character, we can anticipate that the women will resemble grown up children. It is possible that in some races women are more masculine than is the case elsewhere; but if such be the fact, the evidence is not yet accessible.

The general result of comparison is, that the male of the species man possesses the qualities which give him control over the female, both in body and mind; and through his control of nature which comes of energy directed by persistent intelligence, woman is completely at his mercy. It is sometimes said that civilization has changed this relation, and that the possession of money and machinery places woman on an equality with man in the matter of force. In particular cases such results would follow the conditions referred to, but the general relation cannot be much affected. Money is the representative of organized labor, and it is the male whose labor is most valuable, and it is he who controls and organizes labor. Machinery is purchased by money, and mostly requires strength and precision in its use, so that here also the preëminence of man remains. The number of women who are the architects of considerable fortunes is very small.

But in spite of this subordination, the position of woman is not a hard one. She is so necessary to the man, and when she makes the effort, so pleasing to him, that he makes sure to have her society; and even among the lower races he will support her so far as is necessary to enable him to have her with him. He desires generally to support their children, and will protect both from danger and injury. Among the highest races this sentiment is so developed that the woman entirely escapes the responsibility of support of herself and her children, and thus leads a life that is free from most of the strains and anxieties that naturally fall to the lot of the man. Of course the extent to which women experience this immunity is very various, even in civilized communities. Thus the specialization of the sexes becomes complete, and their minds are modified accordingly. This specialization, it be remembered, is beneficial as an element of evolution, so long as the principle of mutual utility is conserved. It is of course evident that too great a difference of sex characters would destroy mutual interest; and this actually occurs in some parts of the world, where women are secluded, or deprived of the education which is necessary to enable them to be companions of men of intelligence.

The generous elements of the character of the man have been developed by the dependence on him of wife and children; and from a domineering savage he has grown to repose affection and confidence in his

family. This is so much the case that the ordinary customs of civilized peoples give woman a preference in many matters of every-day occurrence, which is an expression of a strong sentiment of especial consideration. That this position of vantage in the esteem of men has not arisen from the exercise of physical or of preponderating intellectual force on the part of women, is a self-evident proposition.

## II. SYSTEMS OF MARRIAGE.

Marriage, as an agreement between men and women for the satisfaction of a passion which they rarely attempt to analyze, may be accomplished in various ways. I premise here that the assumption of the Roman Catholic Church that it is performed for the sole object of propagation of children, is very wide of the truth. This reason is probably uppermost in the minds of very few persons who marry. And, as a question of fact, the production of children is but one of several benefits which it confers on mankind, as has been already stated above.

Marriage may be temporary or permanent; it may consist of one of each sex (monogamy); one man and more than one woman (polygamy); or one woman and more than one man (polyandry); or it may be an undefined and unrestricted relation between different men and women (heterogamy). In human society which is at all organized, a definite relation which shall permit the recognition and support of children is held to be necessary. Men do not take upon themselves the support of the wives and children of other men, and if the fathers of children cannot be determined, their support falls on the mother. Her own support also in that case depends upon herself, and she is forced into a position in the world like that occupied by the man, with the additional burthen of a child, and the disadvantage of inferior strength with which to combat nature. The fact that woman is the child-bearer, and that man is not, renders their relation to the marriage contract different. It also renders heterogamy and polyandry disastrous to the well-being of women and children, while polygamy and monogamy preserve the interests of both. In other words, justice compels the support of women and children by a man, so long as they are known to be his; but when this fact cannot be ascertained, he is under no obligation to do so. On this obviously just principle the vast majority of social organizations have been erected. Polyandry has flourished in a few localities, for limited periods, while heterogamy has been generally outlawed, even among very primitive races. This fact has, however, not prevented the hetæra from having been a more or less conspicuous person in history, and her trade is prosperous to-day in the most civilized communities. This fact results from two causes, apart from want of



self-control, and from poverty. They are, first, the nomadic habits of many men; second, the forced associations imposed by an extreme monogamy. That heterogamy is disastrous to children, and so is inconsistent with a healthy growth of population is clear enough. That it is highly injurious to the female mind is not less certain; and that it becomes finally an insufficient means of support, is also equally evident. It is an institution which might be largely replaced by better systems were rational attempts made to do so. In regions where women are in excess and their surplus is not self-supporting, a voluntary and properly defined polygamy would be better than the state of affairs which now exists. I say *voluntary* polygamy, the adjective of course applying to both sexes. Where the institution at present exists, it is usually voluntary on the part of the man, but not, or but partially so, on the part of the woman. This is a wrong to woman, who should, to a certain extent, have entire liberty of choice in the matter of her marriage. I say to a certain extent, for it might happen, though almost inconceivable, that all the women of a given locality, few or many, might refuse to become mothers. In that case I suppose the scriptural injunction to "increase and multiply" would be regarded by many men as sufficient justification for rape. By others its justification would stand on the same basis as that for the commission of murder in self-defense, or the stealing of bread by a starving man.

The historical origin of monogamy is an interesting question that can be but lightly touched on here. It is easy to understand that among tribes and nations in the state of war which seems to have characterized primitive man, the marriage relation would be more or less unstable. Out of chaos would originate polyandry, polygamy, and monogamy. It is said that polyandry was a result of a deficiency of women, in consequence of female infanticide. It has given way almost everywhere to the other two systems, for the reasons already given. Under polyandry the man has no inducement to accumulate property for children, and industry must ever remain at a low ebb. It is evident that its abandonment must have been partly due to the development of a higher regard for women on the part of men. So, also, the transition from polygamy to monogamy may be regarded as certainly due to the same cause. The development of this interest was naturally accompanied by its complementary trait, jealousy, between men. This increase of the self-interest on the part of men must have been largely due to the advance of woman herself, which I very strongly suspect has ever been the prime factor in social development towards monogamy. In this respect woman leads man, not by direct force, as already remarked, but by the exhibition of those

attractions which are adapted to the wants of his nature.

(To be concluded.)

## FORM AND FORMAL THOUGHT.

### I.

#### KANT'S CRITIQUE OF PURE REASON.

In the introduction to his "Critique of Pure Reason," Immanuel Kant proposes the question: How are synthetical judgments *a priori* possible? On the solution of this problem the whole structure of his philosophy rests, which he characterizes as *Transcendental Idealism*.

'A priori' means 'beforehand,' and its opposite 'a posteriori' means 'afterwards.' To know something *a priori* means to know something before any experience thereof has been had. When we know that the specific gravity of ebony is greater than that of water, we can declare *a priori*, that ebony will not float, but sink to the bottom (the physical law being also considered known). We can even know it *before* the experiment is made. The experiment will afterwards, *i. e.* *a posteriori*, verify our knowledge.

This is the general meaning of the terms 'a priori' and 'a posteriori.' But Kant uses the words in a more limited sense.

In Kant's language the term 'experience' is employed to signify sense-perception. It is not exactly limited to that meaning throughout, but certainly it is always used in opposition to non-sensory or mere formal knowledge. That which produces experience, and which as a reality outside of us and independent of our sensation corresponds to sensory impressions, Kant calls 'matter.' Therefore, we have knowledge of the existence of matter and its different properties 'a posteriori,' or from experience, *i. e.* from sense-perception only.

There is another kind of knowledge, however, which is not sense-knowledge, but formal knowledge. Formal knowledge can be gained by abstraction. The form of things, such as globes, cubes, statues, and other bodies, can be abstracted from their material reality. We can, for instance, think away all things in the world. (We abstract from their material existence.) What is left is 'empty space'; and this conception of pure space is the postulate of a science that is called mathematics. We can abstract, also, from all processes which take place in the world; what is left is the idea of duration only; it is 'empty time,' in which these processes might have taken place. The conception of time, pure and simple, can be conceived as a progress through empty units without reference to real phenomena. Such empty units are called numbers, and by adding one unit to another, we start a process that is known as counting. Counting is the basis of arithmetic. If, again, we abstract from the substance of our thoughts,



the mere forms of thought remain, which, treated as a science, are called formal logic.

It must be remarked in passing that Kant calls space and time 'pure perceptions' (*reine Anschauungen*), while the categories are treated as 'pure conceptions' (*reine Verstandesbegriffe*). This distinction is justifiable for certain purposes, and should not be slurred over by commentators of Kant's philosophy. However, our present purpose is not to explain or popularize the Critique of Pure Reason, but to use its more prominent ideas for propounding our own views which grew out of a study of Kant's Transcendentalism. We may add that every perception, as soon as it is named and clearly defined, becomes a conception. Space can be the basis of mathematics, and time of arithmetic only when both have grown to be clear conceptions.

Formal knowledge is called by Kant a priori, because, if any truth of these formal sciences is established, it will be known to be true for all possible cases of experience, even before the experiments have been made. The rules of mathematics, of arithmetic, and logic, possess rigid necessity and absolute universality. They are the condition of all scientific investigation; for rigidity and universality (*Nothwendigkeit und Allgemeinheit*) in experimental sciences can be realized only through the assistance of the formal sciences. Astronomy and chemistry, for instance, have become sciences only by the application of mathematics and arithmetic; and where can any kind of science be found that could dispense with logic?

A priori, as used in the limited sense by Kant, is purely formal knowledge, while a posteriori is identical with experience. Marks of a priori truths are, according to Kant, absolute rigidity and universality (*Nothwendigkeit und Allgemeinheit*).

Kant has been represented as a philosopher who teaches by his doctrine of the a priori, that man has innate ideas ready in his consciousness. Pure reason, he was supposed to believe, wells up in us as some mysterious power coming from transcendental and most probably supernatural regions. This is absolutely unfounded, as can be learned from the very first sentence in the introduction to his "Critique of Pure Reason":

"That all our knowledge begins with experience there can be no doubt. For how is it possible that the faculty of cognition should be awakened into exercise otherwise than by means of objects which affect our senses, and partly of themselves produce representations, partly rouse our powers of understanding into activity, to compare, to connect, or to separate these, and so to convert the raw material of our sensory impressions into a knowledge of objects, which is called experience? In respect of time, there-

"fore, no knowledge of ours is antecedent to experience, but begins with it."

In order to show that formal knowledge must be distinguished from sensory experience, Kant continues:

"But, though all our knowledge begins with experience, it by no means follows, that all arises out of experience.\* For, on the contrary, it is quite possible that our empirical knowledge is a compound of that which we receive through impressions, and that which the faculty of cognition supplies from itself (sensory impressions giving merely the occasion), an addition which we cannot distinguish from the original element given by sense, till long practice has made us attentive to, and skillful in, separating it. It is, therefore, a question which requires close investigation, and is not to be answered at first sight—whether there exists a knowledge altogether independent of experience, and even of all sensory impressions? Knowledge of this kind is called a priori, in contradistinction to empirical knowledge, which has its sources a posteriori, that is, in experience."

Formal knowledge is independent of sensory experience in so far as we purposely exclude all sensory experience. But, after all, inasmuch as sensory experience is the beginning of all knowledge, a posteriori as well as a priori, to that extent formal knowledge is dependent upon sensory experience (as Kant emphatically declares). Experience is antecedent in time, and from it alone formal knowledge can originate, which—not until a certain height of mental development has been reached—will be separated from the raw material of sensory impressions.

Kant, using the word experience in the limited sense of sensory experience, declares that investigation must go beyond experience in order to find the laws of formal knowledge, or pure thought. He, therefore, called all formal knowledge transcendental, and speaks of transcendental logic, transcendental dialectic, transcendental mathematics, and transcendental arithmetic.

Transcendental is by no means transcendent. Transcendent means unknowable, or what transcends knowledge; transcendental, according to Kant, means what transcends experience. It is not unknowable, but, on the contrary, the basis of all knowledge, and the transcendental sciences treat such subjects as demand (if treated with accuracy) axiomatic certainty. The mysterious has no place in the realms of the transcendental.

The question 'How are synthetical judgments a priori possible?' is to the same purpose as another question of Kant's, propounded in his Prolegomena, § 36, where he asks: "How is nature possible?" When Kant speaks of nature, he refers to our conception of reality, in so far as it is, or can become, the object of science representing the cosmical order of nature. We do not now intend to enter into the details of the problem, as to how far we agree with the sage

\* The word 'experience' is here used in the popular acceptance, being taken as the result of sensory impressions fashioned by pure thought.

\* Here the word is used in the limited sense, as sensory experience.



of Königsberg, and how far we do not agree. But it seems necessary to point out the importance of the problem, on the solution of which the possibility of scientific knowledge depends.

The faculty of thinking in *abstracto* is called reason; and reason (which on earth man alone possesses by virtue of language) can become the basis of science, if by a critical method fallacies and vagaries of reason are prevented. Kant says in the introduction to his "Critique of Pure Reason":

"The critique of reason leads at last, naturally and necessarily, to science; and, on the other hand, the dogmatical use of 'reason without criticism leads to groundless assertions, against which others equally specious can always be set, thus ending un-avoidably in skepticism."

The whole book is devoted to this critique. It shows that pure reason (formal thought) is limited to formal truths only and cannot contain revelations as to the substantial (the sensory or material) contents of our conceptions. This should have been self-evident, but as a matter of fact, philosophers before and even after Kant have most confidently asserted much about God and the world, the human soul, innate ideas, and other things, while their whole reasoning rested upon unwarranted *a priori* arguments. Such philosophers Kant calls dogmatical. Wolf (1679-1754), who had most methodically systematized the metaphysical doctrines of his time, is the most representative dogmatic philosopher.

If we compare our cognition to building material, Kant said, our transcendental knowledge has been employed by dogmatical philosophers for erecting a lofty dome that should reach to Heaven. For this purpose the "Critique of Pure Reason" has found the materials insufficient. Nevertheless, our transcendental cognition is most valuable; certainly it is unfit for the airy castles of supernatural systems; but if employed for its proper purpose, Kant continues, "it very well suffices for a mansion here on earth spacious enough for all our purposes and high enough to enable us to survey the level plain of experience."

Formal cognitions, or conceptions *a priori*, are of themselves "empty;" and sensory impressions of themselves are "blind." If we had only unconnected sensory impressions, we would be worse off than the lowest animalcula or even plants, and the materials of our experience received through our sensory organs would be of no avail. Our formal cognitions furnish the mortar, as it were, of a synthetic method which will enable us to arrange sensory impressions in comprehensively arranged systems. Formal cognition and sensory experience, therefore, are the warp and woof of scientific knowledge. The warp as well as the woof, each by itself, consists of single threads, but in their combination they will furnish a well-woven fabric.

If a philosopher limits his method to sensory experience alone, he will never attain scientific certainty; he can never make definite and positive statements, but will only propose *opinions* which may be overturned on the slightest occasion. Such a one-sided empirical, or naturalistic, philosopher would be guilty of the opposite error of the dogmatist, and while the dogmatist ultimately must arrive at futile assertions, the empiricist's mere opinions must lead directly to skepticism. As the representative philosopher of skepticism, Kant mentions David Hume. David Hume does not recognize the difference between formal knowledge and sensory experience. To him, therefore, all knowledge consists of single, unconnected threads of knowledge.

On the last two pages of Kant's "Critique of Pure Reason," we read the following passages:

"We may divide the methods at present employed in the field 'of enquiry into the naturalistic and the scientific.'"

'Naturalistic' here means what is commonly called "common sense philosophy," which, repudiating all speculation, does not feel the need of a critical method. Kant continues:

"The naturalist of pure reason lays it down as his principle, 'that common reason, without the aid of science—which he calls "sound reason, or common sense"—can give a more satisfactory answer to the most important questions of metaphysics than speculation is able to do. He must maintain, therefore, that we can determine the content and circumference of the moon more certainly by the naked eye than by the aid of mathematical reasoning. But this system is mere misology [contempt of rational thought] reduced to principles; and, what is the most absurd thing in this doctrine, the neglect of all scientific means is paraded as a peculiar method of extending our cognition. As regards those who are naturalists because they know no better, they are certainly not to be blamed. They follow common sense, without parading their ignorance as a method which is to teach us the wonderful secret, how we are to find the truth which lies at the bottom of the well of Democritus."

'Scientistic' denotes here the method of one-sided scientists. The original German text reads *scientifisch*, which has been coined by Kant in opposition to *wissenschaftlich*, i. e. scientific in its usual sense. This scientistic, or one-sided scientific, method lacks critique; it does not distinguish between formal and sensory (between *a priori* and *a posteriori*), and must either undervalue the importance of formal cognition, by not properly employing it as a synthetic principle, or overvalue the importance of formal cognition by attributing to it the power of a supernatural revelation. Kant continues, and concludes his "Critique of Pure Reason" as follows:

"As regards those who wish to pursue a scientistic method, they have now the choice of following either the dogmatical or the skeptical, while they are bound never to desert the systematic mode of procedure. When I mention, in relation to the former, 'the celebrated Wolf, and as regards the latter, David Hume, I may leave, in accordance with my present intention, all others unnamed."



"The critical path alone is still open. If my reader has been kind and patient enough to accompany me on this hitherto untraveled route, he can now judge whether, if he and others will contribute their exertions towards making this narrow foot-path a high-road of thought, that, which many centuries have failed to accomplish, may not be executed before the close of the present—namely, to bring Reason to perfect contentment in regard to that which has always, but without permanent results, occupied her powers and engaged her ardent desire for knowledge."

(To be continued.)

#### METAPHYSICS: THE USE AND MEANING OF THE WORD.

Kant calls every transcendental (or a priori) statement metaphysical, and metaphysics is, in his terminology, the science of pure (or a priori) conceptions. The metaphysics of ethics, for instance, is, so to speak, formal ethics; as may be learned from the editorials in Nos. 51 and 52 of THE OPEN COURT, "Herbert Spencer on the Ethics of Kant." The metaphysics of natural sciences is what Kant calls "pure natural science" (*Reine Naturwissenschaft*). The law of Causation is one of the most important truths of pure natural science. The doctrine of 'Conservation of Matter and Energy,' although it has been discovered through the assistance of experience, can be proved in its full scope by pure reason only. And therefore it would be, according to Kant's terminology, a metaphysical cognition.

Other philosophers have used the word metaphysics in a different sense. Perhaps misguided by a wrong etymology or at any rate under the influence of the literal meaning of the word, they attached to the term the idea of a science that investigates into that which lies behind nature. This unknown something was considered as the source and origin of natural phenomena. Schopenhauer says:

"By metaphysics I understand every pretended cognition which goes beyond experience and therefore beyond nature or the given appearance of things in order to give information about that upon which nature somehow is dependent, popularly expressed what is behind nature and makes nature possible." (Translated from "Welt als Wille und Vorstellung," Vol. II, 2d ed. p. 180.)

The term metaphysics has become popular in the sense conceived by Schopenhauer. No wonder that Comte, from the standpoint of positive philosophy, denounced metaphysics as radically erroneous. Before he was acquainted with Kant's works, he considered him as the representative metaphysical philosopher. Later on when he had read one of Kant's writings, he acknowledged in a letter to a friend,\* that at every

point Kant showed the spirit of positivism. A republication of the letter is found in the preface to Max Müller's translation of Kant's "Critique of Pure Reason."

The name metaphysics is due to a misunderstanding. Aristotle teaches that natural science (*φυσική φιλοσοφία*) must be treated according to certain principles (*ἀρχαί*); therefore it is no independent science. He calls the science of these principles the first, and natural science the second philosophy\* (*πρώτη καὶ δευτέρα φιλοσοφία*). The first science, the philosophy of principles, is treated in a book which in the collection of Aristotelean works had been placed immediately after the books on physics, and some ingenious commentator or copyist, unable to find a proper title, inscribed the essays on the first science *τὰ μετὰ τὰ φυσικά* (sc. βιβλία) "The books after the physical ones." From the words *μετὰ* (after, behind), and *φυσικά* (physical) the term metaphysics has been coined, which gave rise to so many errors and seemed so appropriate and expressive to dualistic philosophers.†

Metaphysics, as employed by Kant, is the most important and most valuable study we have. It is the theoretical basis for all scientific knowledge. Metaphysics, as a science that should give us information about the origin of existence at large, is generally called ontology, or the science of absolute being. Metaphysics, in the sense of ontology, has become, since Kant, untenable ground; and, therefore, Kant has been commended for having given the *coup de grace* to metaphysics.

Goethe and Schiller did not misconstrue the tendency of Kant's criticism, when they declared in one of their Xenions:

"Since Metaphysics of late without heirs to its fathers is gathered,  
Here at the auctioneer's are 'things of themselves' to be sold."

Metaphysics, in the sense of first principles, would be a clarification of our most general ideas, which, like

rapproché de la philosophie positive... Pour moi je me trouve jusqu'à présent, après cette lecture, d'autre valeur, que celle d'avoir systématiquement arrêté la conception ébauchée par Kant à mon insu, ce que je dois surtout à l'éducation scientifique; et même le pas le plus positif et le plus distinct que j'ai fait après lui, me semble seulement d'avoir découvert la loi du passage des idées humbles par les trois états théologique, métaphysique, et scientifique, loi qui me semble être la base du travail dont Kant a conseillé l'abandon. Je rends grâce aujourd'hui à mon défaut d'éducation; car si mon travail, tel qu'il est maintenant, avait été précédé chez moi par l'étude du traité de Kant, il aurait à mes propres yeux beaucoup perdu de sa valeur. Auguste Comte par E. Littré. Paris, 1864, p. 154. Lettre de Comte à M. d'Eichthal, 10 Déc. 1821.

We must add, that to our conception Comte was more metaphysical even than Kant, for he still believed in the Unknowability of what he called "first and final causes," and considered only "the middle between them" accessible to cognition. His conception of positivism was to limit science to the positively knowable; but he did not succeed in entirely freeing his philosophy from mysticism.

\* *Ἡ μὲν ἀνὴρ ἡμεῖς τις ἐτέρα οὐσία παρὰ τὰς φύσεις συνεστηκυῖα, ἣ φυσικὴ ὡς εἰς πρώτην ἐπιστήμην· εἰ δὲ τὴν τῆς οὐσίας ἀκίνητος, αὕτη πρώτη καὶ φιλοσοφία πρώτη.*—Arist. Metaph. v. 1.

† Titulum vulgatum τὰ μετὰ τὰ φυσικά non ab ipso esse Aristotele his libris inscriptum, adeo est verisimile ut pro certo haberi possit. Reintz, ad Arist. Metaph. p. 3.

\* J'ai lu et relu avec un plaisir infini le petit traité de Kant (*Ideen zu einer allgemeinen Geschichte in weltbürgerlicher Absicht*, 1784); il est prodigieux pour l'époque, et même, si je l'avais connu six ou sept ans plus tôt, il m'aurait épargné de la peine. Je suis charmé que vous l'avez traduit, il peut très-utilement contribuer à préparer les esprits à la philosophie positive. La conception générale ou moins la méthode y est encore métaphysique, mais les détails montrent à chaque instant l'esprit positif. J'avais toujours regardé Kant non-seulement comme une très-fortifiée, mais comme le métaphysicien le plus



logical theorems, are most obvious truths. Schiller occasionally jests about the subject, saying in one place:

"Metaphysicians know, I'm told,  
That what is hot cannot be cold;  
Light is not dark, they'd bet,  
And dry things are not wet."

A statement will contain the less positive knowledge, the more it is generalized. The most general laws, which imply absolute universality, are merely formal and do not contain any positive knowledge, however important they may be for the purpose of orientation, so as to enable us to locate and map out our different cognitions according to a systematic method; and those philosophers who assume an air of profound wisdom when speaking about metaphysics are satirized by Schiller in the following lines:

"How deep the world beneath me lies;  
My craft the loftiest of all  
Lifts me so high, so near the skies  
I scarce discern the people crawl."  
Thus shouts Jean Roofer from his spire,  
Thus in his study speaks with weight  
Metaphysicus, the learned sire,  
That little man, so high, so great.  
That spire, my friend, proud and profound,  
Of what is 't built; and on what ground?  
How came you up? What more is 't worth,  
Than to look down upon the earth?

Mephistopheles, in Goethe's *Faust*, treats the subject in a well-known passage with great sarcasm. He satirizes those metaphysicians who are pleased to veil their language in mystical and contradictory expressions, which either contain trite truisms in the shape of philosophical conundrums, or must be classed with hallucinations and other pathological phenomena of a diseased brain. Mephistopheles says:

"The next most important thing to mention,  
Metaphysics will claim your attention!  
There see that you can clearly explain  
What fits not into the human brain:  
For that which will not go into the head,  
A pompous word will stand you in stead."

—Translated by Brooks.

Metaphysics, in the sense conceived by Schopenhauer, and combated by Comte, is the last remnant of theological supernaturalism. It is dualism, pure and complete, without religious mythology. The mythological entities have been volatilized in the crucible of philosophy to vague shadows of a transcendent or metaphysical something. This something is supposed to be "the thing of itself," the ultimate  $x$  in all philosophical problems, and the unknowable, eternal reality behind the knowable transient phenomena. Metaphysics of this kind has been and will more and more be superseded by Positivism; it is irreconcilable to monism, which is positive and anti-metaphysical.

#### REVIEWS.

*Current Literature*, the new monthly, is published in New York. An eclectic magazine of stately size, and including a copious variety of happy selections from current publications, newspapers, and magazines. Most of the articles are grouped together under appropriate headings, so as to constitute departments. A

whole library of instructive matter is presented in each number, and the reader's attention is called to many a useful and interesting article published in journals which he may rarely have a chance to meet with.

*Table Talk*, a monthly magazine, devoted to the needs of American households, will be welcome to the intelligent housewife of every home. Its contents are not entirely given to the *pratique* of household economy. The poetry and ethics of the culinary world also find their proper representation in *Table Talk's* pages. What a mass of sentiment clings to the bare thought of a "Thanksgiving Dinner," even when the discussion is limited to the cold recital of a *menu*! What a mountain of hope and ambition rises in one, when he reads "How to Live on a Thousand a Year"! We cheerfully recommend *Table Talk* to all who, in cultivating the *sana mens*, have deputed to their wives the care of the *sanum corpus*. *Table Talk Publishing Company*, Philadelphia, Pa.

The *Art Amateur* for November gives us its programme for the new year, which we know is coming, although the beautiful Indian Summer seems rather to carry us back to July than to give a hint of bleak December and January. It promises many good things. Colored prints in each number, Decorative Designs, and Flower Studies will be among the illustrations, while "The House" will contain drawings of interiors and designs for furniture. Amateur Photography, and Ecclesiastical Embroidery will receive due attention, and Photo Gravure, Etching and China Painting will not be neglected. The most interesting reading matter will probably be the biographies of artists, both of the American and foreign schools.

The present number contains a sketch of unusual interest of a Russian painter, Vassili Vereschagin, a philosopher of Tolstoi's manner of thought. He has endeavored to paint the horrors of war, with such realistic force as to turn men's minds to love of peace rather than of military glory. He has also painted many Scripture scenes with such fidelity to what he conceives to have been the actual facts in the case, as to shock those who have always thought of them as supernatural occurrences. For instance, "The Resurrection" shows Jesus thrusting his head out of the narrow opening of an ancient Jewish tomb, while the Roman guards frightened by the apparition are running away. He made studies for these pictures in Palestine, and in simple reverence has tried to reproduce the picture of these events just as they occurred. He believes in his method and thinks time will justify him. He is now on a visit to this country, and is said to be a genial man, with a hearty laugh, and to speak English well. There is an interesting notice of the collection of pictures by George H. Boughton, and many other articles of interest.

The *Art Amateur* is a very welcome visitor among young students, and those who are now planning for Christmas gifts might well consider how pleasantly they would be remembered throughout the year by a subscription for this popular journal. E. D. C.

#### NOTES.

The Freidenker Almanach for the year 1889 contains valuable contributions from prominent German-American authors.

M. Alfred Binet has recently given to the public a collection of essays entitled, *Studies in Experimental Psychology* (Octave Doin, Paris). He has added some interesting remarks upon the Problem of Hypnotism, which may be regarded as supplementary notes to his work upon *Animal Magnetism* in the "International Scientific Series."

Omitted Chapters of History Disclosed in the Life and Papers of Edmund Raschke, by Moncure D. Conway (G. P. Putnam's Sons), is now before the public. The work contains a wealth of interesting historical material, and consists chiefly of unpublished matter. THE OPEN COURT, Nos. 52 and 53, contained an inter-



interesting article by the author, upon "The Founding of Our Religious Freedom," also taken from unpublished sources.

Moncure D. Conway's essay "The Spiritualists' Confession," in No. 63 of THE OPEN COURT, deserves a careful perusal. The success of the spiritualists must be attributed to the natural longing of mankind to know something positive about immortality. The old view of a continuance after death in the Utopia of a supernatural world has become untenable. Nevertheless, the idea of immortality contains an important truth which should be better understood in order to be fully appreciated.

### MY THREE FRIENDS.

BY CARMEN SYLVA. (ELIZABETH, QUEEN OF ROUMANIA.)

TRANSLATED FROM THE GERMAN BY MARY MORGAN (GOWAN LEA).

Together lived we on the Rhine  
(The Wood, Myself, and Songs of mine),  
Companions were we three:  
And what we thought, or sung, or dreamed,  
We whispered, while the moonlight gleamed,  
Low to the silvery sea.

But Fate called me to leave the spot,  
In foreign lands to build my cot;  
The East my home must be:  
"Alas, good friends, what can we do?"  
That we should part I sorely rue;  
Oh, come along with me!"

They shook their heads, both Rhine and Wood:  
"In old age wandering is not good;  
But we shall hold thee dear."  
No sooner my new home I found,  
Than from its portal came a sound—  
My Songs! Hark—they are here!

### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXV.—Continued.

After carelessly scanning the list of names in the visitors' book, the Sovereign despatched the curator upon an errand and began, to his attendant: "The collection is less seen than it deserves; I have long thought of having it made better known and more useful to men of learning, by a better arrangement and a good catalogue. It has been one of the little pleasures of my life; I have learnt much by it, and it has at times banished annoyances from my mind. Do you know of any one who would be fitted to undertake the management of a work so important and exacting?"

The Chamberlain bethought himself, but no one occurred to him.

"I should prefer a stranger," continued the Sovereign. "That will give rise to a passing and unembarrassed connection. He must of course be learned and have good guarantees of character."

The Chamberlain named several connoisseurs from other capitals. The Sovereign looked at him keenly, and shook his head. "Think it over," he repeated; "perhaps some one will occur to you."

Translation copyrighted.

The examination continued. An antique vase interested the Sovereign by reminding him of how he had obtained it. A Roman woman, of great beauty and commanding figure, had suddenly confronted him and offered it to him with such a distinguished manner, that he, as he laughingly expressed it, was so surprised by the unusual demeanor of the woman, and her sonorous voice, that he paid her more than she asked.

No one yet occurred to the Chamberlain.

On his way back to his apartments the Sovereign remained standing in one of the spacious but lonely halls and asked the Chamberlain, "Has it not occurred to you that Scarletti dresses badly?"

The Chamberlain dissented, for the actress mentioned was supposed to be in favor.

"Yesterday evening she carried an immense bouquet. To which of our young men is this ungraceful attention to be ascribed?"

Again the Chamberlain was astounded.

"As you are disposed to know nothing to-day," continued the Sovereign, in a sharp tone, "I must tell you that I should be sorry to see the Hereditary Prince having any intercourse whatever with the ladies of the theatre. He is not old enough to carry on such connections with the necessary reserve; and the vanity of these ladies will bring every favor to public notice."

The Chamberlain affirmed, upon his honor, that he knew nothing of these civilities of the Hereditary Prince, and that, even if the assumption of his gracious master was well founded, it could only have been a passing idea of the Prince that had occasioned this gift. "Your Highness will be convinced that I would not lend a hand to anything of this kind."

"But I do not choose that you should close your eyes to it," continued the Sovereign, bitterly; "you stood in the box behind the Hereditary Prince, and you must have seen the coquettish look of admiration which she cast upon him. The present was probably sent by the new valet; let him know that in my service one does not carry two faces under one hood. But I require of you," he continued, more calmly, "that you should redouble your vigilance. What occupies him now?"

"He attends regularly the small evening parties of the Princess."

"And in the day?" added the Sovereign, continuing the examination.

"As your Highness knows, he is fond of music; he plays duets with the music-master."

"What does he read?"

The Chamberlain named some French books. "May I be allowed humbly to make a proposal? It would, in every point of view, be useful to his Highness if he had the pleasure of devising or arranging



something—perhaps the laying out of a park, or the management of a farm. I venture to suggest that a similar occupation has been found advantageous to young princes at other courts. Perhaps one of your Highness's castles could be adapted for such a purpose."

"And the Hereditary Prince and Mr. von Weidegg would keep their own court, and remain many months in the year far from ours, at their villa," replied the Sovereign.

"I assure your Highness that I never thought of such a thing," answered the Chamberlain, offended.

"I do not blame you," replied the Sovereign, with cutting courtesy. "Consideration for my coffers forbids my assenting to your proposal; but I shall think of it. It is a disappointment to me that the Prince has not learned to take an interest in anything during his stay at the University. Has he had no personal relations during that time that may have given some zest to his life?"

"He took great pleasure in the circle of Professor Werner," replied the good Chamberlain, hesitatingly.

"I hope he preserves a grateful recollection of his teacher."

"He speaks with great interest of him and his family," rejoined the Chamberlain.

"It is well," concluded the Sovereign. "I will take into consideration the question of agricultural occupation; and do not forget to think a little concerning my collection."

This new demand could no longer be withstood by the Chamberlain; he was silent for some minutes, inwardly struggling, while the Sovereign moved on with his head turned towards him, like one who waits for something decisive.

"I do not know that I can propose any one better for the purpose than Professor Werner himself," said the Chamberlain, at last.

The Sovereign again stopped. "You consider him fitted for the work?"

"With respect to his scientific capabilities I naturally can form no judgment," replied the Chamberlain, cautiously.

Irritated by this cowardly attempt to draw back, the Sovereign asked with emphasis, "Would he undertake such a charge?"

"He has a very distinguished position at the University, and is happily married; and he would, undoubtedly, not like to leave his present position for any length of time."

"Perhaps that may be arranged," rejoined the Sovereign. "Werner, then, is the man. At a short interview I accidentally had with him he made a good impression on me. Do not forget to remind me this

evening that the archives at Bielstein are to be searched."

Thus did a father exert himself for the benefit of his son.

The Chamberlain reminded his lord that evening that there had been a question of an investigation in the archives of Bielstein, and the sovereign thanked him for it. The following morning orders were given through the Council to the keepers of the records and members of other branches of the Court and State administration, to seek out and send all records of a certain age that had reference to the castle of Bielstein and monastery of Rossau. This order occasioned a great raising of dust, and five large leather sacks were filled with records and old papers. The collection was sent to the Professor; and in a letter the Sovereign expressed his thanks for the attentions which the Professor had shown the Hereditary Prince. He added that, remembering a former conversation, he sent for his inspection all that, in a cursory search, could be found concerning a place in which he took an interest.

This letter gave cause for serious consideration to two inquiring minds. When the dubious report of the student concerning an existing chest had disturbed the peace of the house, the friends had again turned their attention to the inventory of the deceased Bachhuber, and had once more pondered over every word of it: "In a hollow and dry place, *LOCO CAVO ET SICCO*." The word place, *locus*, occasioned much thought; but they could come to no certainty about it. "Of the house of Bielstein, *DOMUS BIELSTEYN!*"—here the expression house, *domus*, was very remarkable. Did it mean that the manuscript lay concealed in the dwelling house itself, or was the word house used in the obsolete meaning of estate or property? The Doctor contended for the dwelling-house, the Professor for the estate. Much depended upon this; for if *domus* signified estate, the manuscript might be concealed in any part of the property. "I have deposited it all, *hec omnia deposui*." The word all, *omnia*, was very comforting; for it gave the certainty that the deceased Bachhuber had not left the manuscript behind. But the depositing was a matter of some doubt. Did the word betoken that the manuscript was deposited only in Bielstein, and thus given over and entrusted, so to speak, to the inhabitants?—or had the writer chosen the expression because he wished to signify the interring and blocking it up in some deep place? To us laymen in the Latin tongue, it appears clear indeed that Bachhuber was very glad to have a Latin vocabulary in which to signify the concealment of his treasure; however, the feeling of the learned men was otherwise.

Finally, the friends agreed in taking the view, that, in spite of this account, the walls of the house were worthy of future attention. The hollow places which



the Doctor had registered might be examined; the cupboard in the wall in Ilse's bedroom appeared a place not to be despised. The Professor, therefore, determined to obtain some certainty on that point during the next vacation. The business of the Rector had only allowed a short visit to the castle this time; but the Professor would be aided by his position in the family, which opened Ilse's room and cupboard to him.

It was a fine August day; the father was riding about in his fields, and Ilse sitting with Clara in household consultation, when an uproar was raised in the kitchen, and the housekeeper, quite beside herself, rushed into the sitting-room, exclaiming: "There are ghosts around again!" There was, in fact, a loud knocking in the house, and the maids congregated in the hall. The noise came from the upper story; so Ilse hastened upstairs, and, on opening the door to her room, found the Professor, in his shirt sleeves, working in the cupboard with various tools he had obtained from the carpenter. He received her, laughing, and called out, to tranquilize her, that he was nailing the cupboard boards tighter. This was right, but he had first broken through them. The manuscript was not there, and nothing was to be seen but an empty space and a few bits of mortar. There was, however, one inexplicable thing, which might be a trace of the manuscript—a small bit of blue cloth rag; how that had come into the wall was a riddle. On further examination, it appeared that it was not colored with indigo; therefore, probably, it had existed previous to the introduction of that color into civilization. Whether a mouse, in her motherly care, had deposited it there as an ornament to her bed, and at the same time for food in a desperate case of necessity, could not be ascertained, as at present these folk seem to have no traditions of the past, and the individual had probably been eaten some centuries ago by an ancestor of one of our cats.

This discovery might have given confidence to the friends, for there were now two places where the treasure was not. But there is much that is illogical in the nature of men. Even the Doctor inclined now to the Professor's opinion, that the manuscript was perhaps not concealed in the house; nay, that it might even be at a distance from the place.

Such was the state of the matter when the Sovereign's packet arrived. The friends were occupied many hours with the trunks, and examined the records carefully. They found much that would be valuable for the history of the district, but nothing that led to the manuscript. At last, the Professor raised from the bottom of one of the trunks a thick bundle of reports, on sheets sewed together, which had been sent by the officials of Bielstein to the Government. Among them

was the writing of a deputy-bailiff of the last century, in which he notified that he was hastening, in those times of suspense and danger, commanded by high authority, to convey to the royal country residence, Solitude, the chestful of hunting implements and old books which had up to that time been in his custody.

The writer of the letter had undoubtedly not foreseen what an excitement his faded scroll would produce in a later generation.

"This is the student's chest," cried the Professor, the color rising to his cheeks, while he held out the document to his friend.

"Remarkable!" said the Doctor. "It is impossible that this coincidence can be accidental."

"The student's chest was no will o' the wisp," cried the Professor to his wife, in her room; "here is the confirmation."

"Where is the chest?" inquired Ilse, skeptically.

"That is just what we do not know," replied the Professor, laughing. "Here is a new scent, indistinct, and in a new direction; but it may lead shortly to the vanished parchment." The friends hastened back eagerly to the bundle of records. "Old books!" exclaimed the Doctor; "the house was a hunting castle; a generation before this letter was written, the estate came first into the possession of this princely family; it is not probable that they themselves, in their short hunting visits, should have collected books there."

"Old books!" exclaimed also the Professor; "it is possible that hunting journals and accounts may be meant; but it is not impossible that the chest may also contain some few things of the property of the monastery. Ilse, where is the old castle belonging to your Sovereign called Solitude?"

Ilse knew nothing of such a castle.

"It is a fortunate coincidence that the Sovereign himself may give us an opportunity of obtaining more accurate information."

"Ah, you poor men!" said Ilse, through the door, pityingly. "Now you are far worse than before; as long as the treasure was still supposed to be in our house, my father at least could keep a good look out; but now, it is in a chest far away in the wide world, and no one knows anything even of the house to which it may have been carried."

The friends laughed again. "Your father's house is not on that account less under suspicion," said her husband, consolingly.

The Professor sent back the contents of the chest to the Royal Council, expressed in his letter his warm thanks to the Sovereign, and mentioned that an uncertain trace made him very desirous of obtaining permission to make personal investigations.

The letter had the desired result for both parties. The Sovereign had the satisfaction, which is pleasing



to earthly masters, of appearing to confer a favor while he was seeking one.

The Professor was joyfully surprised when he received from the Council in the name of the Sovereign a letter promising to promote his investigations in every way, and making the following proposal: The Sovereign wished his cabinet of antiquities to be examined by a scientific authority, and there was no one to whom he would more willingly trust this task than to the Professor. He knew well how valuable to others was the work of so learned a man, but he hoped that his collection might appear of sufficient importance to him to spend a few weeks upon it.

At the same time the Chamberlain wrote, by desire of his gracious master, that the Sovereign would be delighted if the Professor would accept the hospitality of the Palace during the time of his stay. A garden pavilion, which was a pleasant spring-residence, would be at his disposition. The dwelling was large enough to receive his family also, and he was commanded to suggest that there would be plenty of room if the Professor would bring his wife and servants, as the Sovereign did not wish that the learned man should be deprived of his domestic comforts during his stay. The beginning of the spring would be the best time for both parties; and the Chamberlain would be delighted to do the honors of the capital to his countrywoman.

The Professor hastened with flying steps to his wife, and laid the letter in her lap. "Here, read what endangers our journey into foreign lands. It will engross the greatest part of our traveling time. But I must accept the invitation; for any prospect, even the most distant, of obtaining the manuscript compels me to stake much that a man will only sacrifice for a great hope. Will you accompany me on this chase? You see, the kind people have thought of everything."

"I a guest of our Sovereign!" exclaimed Ilse, reading the letter. "Never should I have dreamt of such an honor. What will my father say of it! It is a very honorable invitation for you," she continued, seriously; "and you must at all events accept it. As for me, I think it may be best for me to remain here."

"Why should we be separated for weeks?—it would be the first time."

"Send me to my father meanwhile."

"Does not that come to the same thing?" asked the Professor.

"What shall I do among these strangers?" continued Ilse, anxiously.

"Nonserse," replied the Professor. "Have you any reason to give?" and he looked at her, discomposed.

"I cannot say that I have," replied Ilse.

"Then decide at once, and come. We should probably feel more free if we could live as we liked; but I

should not wish to reside for weeks at a hotel in a foreign city; and, from another point of view, this reception will save both parties the difficulty of offering and refusing compensation. We shall remain there as long as is indispensably necessary; then we shall go south, as far as we can. It is, after all, only putting off the journey a few weeks."

When the Professor's letter of acceptance arrived, the Chamberlain informed the Sovereign of it in presence of the Marshal: "See to it that the pavilion is arranged as comfortably as possible. Dinner will be served at the pavilion at whatever hour the Professor wishes."

"And what position does your Highness intend the strangers shall occupy at Court?" inquired the Marshal.

"That is understood," said the Sovereign; he has the privilege of a stranger, and will occasionally be invited to small dinners."

"But the Professor's wife?" asked the Marshal.

"Ah!" said the Sovereign, "the wife. It is true, she comes with him."

"Then," continued the Marshal, "there is to be dinner for two at the pavilion; apartments for two, and a room for a lackey without livery."

"That is enough," said the Sovereign; "for the rest, we shall see. If the Professor's wife visits our ladies, I assume they will return the civility. We will leave the rest to the Princess."

"What is the history of these strangers?" asked the Marshal of the Chamberlain. "You know the people."

"As one knows people in a strange city," replied the Chamberlain.

"But you arranged their coming?"

"I only wrote according to the Sovereign's orders. The Professor is a learned man of reputation, and a thorough gentleman."

"But what has his wife to do here."

The Chamberlain shrugged his shoulders. "He could not be got without his wife," he replied, cautiously.

"Yet the Sovereign made a point of her coming."

"Did that strike you?" asked the Chamberlain. "I, for my part, did not remark it. He made it appear as if it were a matter of indifference to him; and, furthermore, she is a country-woman of his."

"You know that the Sovereign would be the last to infringe the rules of the Court. There is no reason for anxiety."

"At all events, the Princess must maintain her position. I hear this Professor's wife is considered a beauty?"

"I believe she is also a woman of high character," replied the Chamberlain.

(To be continued.)



## FORMER CONTRIBUTIONS TO "THE OPEN COURT."

MORRISON I. SWIFT.

In No. 23 Morrison I. Swift makes a vigorous appeal to the churches that they become actively interested in what is generally known as "The Social Problem," and that they take the lead in Christianizing the people after the manner practiced by Jesus in Judea and by his disciples, as related in the New Testament. Mr. Swift's language is clear, eloquent, pervaded by an ideal humanitarianism, and is not only respectful to the clergy but even reverent. He thinks the opportunities of the present and the future are in the hands of the churches, and that the clergy may lead the van of social progress instead of trailing along behind the baggage wagons, as they have so long been contented to do. "In this country," he says, "where the church has the allegiance of so large a portion of the people, where it represents a large proportion of the specially organized moral forces of the land, where finally its material resources are almost unlimited and the money power of the country is its friend and supporter, it would be possible for the church to bring about the reform that is needed, with little difficulty, if it desired to do so." Here Mr. Swift is confronted with the important objection that should the church take the lead in the social revolution or even in social reformation so far as "to establish such fair distribution of the products of human industry that superabundance and luxury will not exist," the "money power of the country" would cease to be its "friend and supporter" and the clergy might cease to be a priesthood. He presents the difficulty thus: "It is said by some that the pulpit will not go much beyond those who maintain it. This is to acknowledge that the opinions of the clergy are to-day bought and paid for, just as lawyers are hired and legislators sent to uphold the ideas of their constituency." Notwithstanding this difficulty, Mr. Swift sees "a slumbering lion in the Christian ministry, which will, ere long, awaken and put forth its formidable powers for the poor and the oppressed."

W. D. GUNNING.

Mr. W. D. Gunning's essay *Katzenjammer*, in No. I, is a sprightly, half humorous, half serious lay sermon, sending shafts of light into the dark recesses of the mind. *Katzenjammer* is a German word, which means cat-sickness, and denotes a malady of body and mind which results from night-life. The owl, the night-hawk, the whip-poor-will and all the felines are night-prowlers. Men also have gone astray with the cats and become nocturnal; even Socrates, with all his virtues was somewhat addicted to *Katzenjammer*. *Katzenjammer* was a large factor in the decline of Athens and the chief factor in the fall of Rome. What a *Katzenjammer*'s-band was that of Cataline! What *Katzenjammer* was that of Nero fiddling in the light of burning Rome! Struggle for life drove one member of a certain family higher into the air, and another into the ground. The sun-seeker gained in eye and brain, the earth-burrower lost its eyes and retained only brain enough to guide it through the ground. Such are the fates of the mole and the bat. Igrasil the tree of life has been pushing its human fruit inward to the shade. We want a peripheral humanity lit by beams of science and sweetened and mellowed by active rays of the sun of righteousness.

E. P. POWELL.

The American scholar, E. P. Powell, gives his views on "Language" in Nos. 24 and 26. He maintains that language, as a means of communication, is possessed by all the animal creation, even down to the lowest in the scale of being; that all communicate with one another; that all of them have a language to express their wants and especially to express hunger. This lies at the root of the principle of evolution, because "organic development is necessitated in the direction of organic power to express—to speak."

GEORG VON GIZYCKI.

In Nos. 25 and 26 is presented a very scientific article entitled "Determinism versus Indeterminism," by Georg Von Gizycki, Professor of Philosophy at the University of Berlin. This is in answer to Professor William James of Harvard University, who, in a lecture published in the *Unitarian Review*, had maintained the doctrine of *indeterminism*. The whole inquiry relates to the Freedom of the Will, and the terms are thus explained:

"The question whether the actions of the will are phenomena which act in conformity to a law, admits of only two answers—yes and no.

The philosophic theory which holds that they do, has been called *Determinism*; that which says they do not is known as *Indeterminism*."

The argument, which is deeply philosophical throughout, and in some parts of it a demonstration, proceeds upon the theory that the human will is under the control of law, and that its actions are *determined* by necessity; that Freedom of the Will is never an accident, nor the offspring of caprice; that the reformation of an evil-doer is made by surrounding him with conditions whose laws will compel his will to act in the right way.

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## A MARRIAGE ADDRESS.

BY WM. M. SALTER.

In the eyes of the law you are now husband and wife. But there is a wider view of the matter. Marriage is a union of hearts and minds. It has an ideal significance. It is an introduction to a newer and higher life. It is not inapt then that a few words be addressed to you on these broader and deeper aspects of the relation on which you are now entering.

Marriage, to those who take the modern view of the world, is still a sacrament. It is a sacred thing. It cannot be entered on lightly. It cannot be made to serve low purposes.

"Love's not love,  
When it is mingled with regards that stand  
Aloof from the entire point."

Marriage that springs not from love is an anomaly and often draws after it a bitter curse. It is love that gives it its sacredness. No hand of priest or minister, no mystic rite can atone for the lack of this, and the most venerated forms can do no more than set it forth and declare it with becoming solemnity and impressiveness.

The love that finds its fruition in marriage is not of the body only, nor is it for a day; it is of the entire being, and in anticipation it covers the entire life. Such love is the high tide of the soul; experiencing it, men and women are twice themselves; reason, imagination, and even the senses, seem gifted with new powers.

The grandeur of our nature is that from our best moments we can take the rule for our poorest and worst. Marriage involves not merely a state of feeling, but also a state of will. The love of which I speak is after all a choice. It finds its utterance in a vow. The old Latin word *sacramentum* meant an oath. It was often applied to the pledge of loyalty to one's country, which a soldier took. A sacrament is that in which we bind ourselves over to something. So, in this act of marriage, my friends, you bind yourselves over to one another. You take your best thoughts now, your purest feelings, and you say to yourselves, these we will make the rule and the law for all our lives. You will act always in love, you will seek always one another's good, you will—to quote a beautiful passage of Christian Scripture—"in honor prefer one another," you will—to quote still another—"never let the sun go

down on your wrath," but be kind and tender-hearted, and always ready to forgive one another.

These finest and highest feelings I know are in your hearts now, and you are inwardly saying to yourselves, —yes, we will be true to them, and *be* what in our dreams we want to be. Make these ardent resolutions, vow that through life you will be true to one another, that you will love and honor, comfort and keep one another, in sickness and in health, in prosperity and in adversity; and these moments will live in your memory as a holy time to you, and the remembrance of them will make you strong, should temptations ever assail you, will make you brave in trial, will keep you faithful and serene should your feelings ever ebb a little instead of keeping at full tide.

Marriage is a partnership in all sweet affections. It is a partnership in virtue; it is also a partnership (or should be) in the things of the mind, the things that pertain to an advancing civilization. A wife is no longer a slave, nor is her husband a lord whom she must obey. She is a companion, she is to be the partner of his thoughts, of his aims in life, and to share in his ambitions. How sweet is such comradeship for a man, and how it enlarges the soul of a woman.

Men and women are not alike, nor have they the same duties; but they should sympathize with one another, and understand one another. They need one another; they are complementary to one another, and each without the other is imperfect.

"For woman is not undeveloped man  
But diverse; could we make her as the man,  
Sweet love were slain: his dearest bond is this,  
Not like to like; but like in difference:  
Yet in the long years liker they must grow;  
The man be more of woman, she of man;  
He gain in sweetness and in moral height,  
Nor lose the wrestling thews that throw the world;  
She mental breadth, nor fail in childward care,  
Nor lose the childlike in the larger mind;  
Till at the last she set herself to man,  
Like perfect music unto noble words;  
And so these twain, upon the skirts of time,  
Sit side by side, full-summ'd in all their powers,  
Dispersing harvest, sowing the To-be,  
Self-reverent each, and reverencing each,  
Distinct in individualities,  
But like each other even as those who love:  
Then comes the stater Eden back to men:  
Then reign the world's great brides, chaste and calm,  
Then springs the crowning race of humankind."

The highest duty and the proudest right which man or woman can have is to work for the progressive civilization of mankind. The aim of our lives is not



altogether in ourselves. We are parts of a greater whole. We belong to humanity. We cannot help thinking of a more perfect humanity that will some day be, and as the rivers flow onward to the sea, so do our souls move in longing and desire toward the future triumph of the good.

The significance of marriage is at bottom moral; by it we are taken out of ourselves and linked to another; we learn unselfishness, we learn that our true life is not in ourselves, but in union with another.

Morality in its widest sense, I might call our marriage with humanity,—so that the centre of our being is no longer in these poor, partial, and so swiftly vanishing selves, but in that grander life of which we are a part, which was before we were and will continue to be after we are gone. The marriage of two souls inevitably suggests the union of each to the good of all. The one should lead to the other. The love which has made your hearts tender to one another, though in one sense it is peculiar to yourselves and always must be, should yet make you tenderer to all the sons and daughters of men. Do not retreat within yourselves, do not turn love into a new though slightly larger selfishness. From its hidden spring let come a stream to enrich the world, let it give you the impulse and the courage to dare and do for the true and the right as never before.

You join hands now, join them in fealty to one another, to love and serve one another while you live; join them also, I pray you, in a still grander vow—to give yourselves to the true love and service of humanity.

We all of us who are here, bless you, and from our hearts wish you joy.

#### THE MARRIAGE PROBLEM.

BY E. D. COPE, PH. D.

(Concluded.)

#### III.—MODIFICATIONS OF THE PRESENT MARRIAGE SYSTEMS.

I have treated the subject of this paper in what might seem to some readers to be a utilitarian spirit, and I have done so intentionally. I have desired to get at the basis of fact on which some of the strongest of the emotions of the human mind repose, so as to be able to avoid, if possible, prejudice or bias. The subject is not usually treated of in cold blood, so to speak, just as one does not ordinarily handle deliberately, and closely inspect, a burning object. However, I hope to be able to maintain the judicial attitude towards the subject of the present section of this paper, and I beg that my readers will do the same. I hope to avoid the unreasoning denunciation of imaginary evils, and laudation of supposititious good, which is the material of current discussion of the subject.

It has been already remarked that of the four possible systems of intersexual relation, those of heterogamy and polyandry are either destructive of the best interests of society, or are, for material reasons, impracticable. It remains to consider the two remaining ones, polygamy and monogamy; by polygamy, voluntary polygamy being meant. It does not seem difficult to the present writer to show that of these two systems a good or successful monogamy is the better for both sexes. Where the sex-interest between a man and a woman is sufficiently strong, both of them will make its preservation a matter, of especial effort, and if the various wants of the character of the one are met by the other, there is no room for any third or fourth person. This state of affairs will, however, not be general in an imperfect condition of civilization of manners and mind, so that monogamy must be, in point of fact, a more or less imperfect arrangement. The reasons why monogamic marriage is so often a failure, are as numerous as are the faults of human character, but one of the most common is one which might be avoided. This is the existence of a pessimism on the subject, and an ignorance of how much happiness may be developed, so to speak, by the mere attempt to produce it. Nature has given us the initiative, and there is no reason but human perversity, why we should not take a hint from her pointings, and go beyond her into the regions of mind, where light and life are, and where Nature herself is transfigured by the atmosphere through which we view her. But how many persons fail to rise, or having risen, to remain, in this region of the exaltation of true love, but throw away in the most reckless manner a jewel which they may never recover. It seems extremely probable that if this subject could be properly understood, and become, in the details of its practical conduct, a part of a written social science, that the monogamic marriage might attain a far more general success than is often found in actual life. But, far be it from me to admit the idea, that it is not now, in many instances, the most perfect of human relations.

Since as much suffering is caused by ignorance as by wickedness, a great deal of the waste of happiness in marriage life is due to an ignorance of the possibilities of the situation. The woman often does not reflect that there is nothing but his affection to bind her husband to her, until her own unkindness has driven him away. The unsuspected result comes on her like a lightning-stroke, and she may have much time for regrets. The man does not know the possibilities of love that lie in the heart of his wife until she gives him some evidence that shames him into respect for her, or until she is lost to him through his ill treatment. And from these extreme conditions to matters of lesser import.



"Man schafft so gern sich Sorg' und Müh',  
Man sucht die Dorn'a und findet sie."

and suffers, where a little knowledge, a little benevolence, or a little physic, would clear the sky and let in perpetual sunshine.

That there are serious divergencies of character and conduct in men and women which render them unfitted for the partnership of marriage, follows from their various ancestry and education. There are men whose personal habits and manners render them unfit for the society of any but a woman of their own low type. There are women who are possessed of a hysteria of an aggressive character, who constantly tempt the man to put his superior muscular force into practical operation. Then there are persons of both sexes who have injurious habits, and others who are more or less insane. Insane persons and habitual drunkards, opium eaters, etc., should not, in the writer's opinion be permitted to marry, or if married, should be separated from their husbands or wives. This is for the all-sufficient reason that such unions cause a great deterioration of the race. Of the reforms necessary in our marriage laws, this one is the first to which I wish to call attention. But the suffering and loss arising from ill-assorted marriages are not confined to the lower or abnormal types of men, but extend to the highest. In fact it is probable that the mental suffering is greatest among the most highly organized of mankind, where emotional sensibility is most active, and intellectual life more real and important to its possessor. The experience of the intellectual man or woman is illustrated by the case mentioned by P. G. Hamerton. The man relates that after marriage he found his wife to be totally ignorant. He attempted to teach her; she became angry at this, and he gave it up, and with it the hope of companionship for a life time. The position of woman in an ill assorted marriage is even more unfortunate than that of man, on account of her fewer opportunities for relief; and on account of the still greater grievance of the physical impress she receives in the case that she bears children.

That there should be a large percentage of unsuccessful marriages, as marriages are made, is to be expected. The principal element in determining the result so far as we can see, is contiguity; often with small opportunity of real acquaintance. The most disastrous mésalliances are often made through the sheer incapacity of a noble boy or girl to imagine the worthlessness or depravity of the characters with whom he or she is brought into contact; and the most unsuspecting natures are the most easily deceived. All this is well worn ground, and I now turn to possible remedies.

It has been proposed that all laws governing the

marriage relation be abolished, and arrangements be made by the two persons interested, to suit their own convenience and pleasure. It has been objected to this proposition that it involves the introduction of a reign of confusion, and in fact the adoption of a kind of heterogamy. Partners, it is alleged, would be continually changing, and children would not know their parents, nor parents their children. Such critics mistake a great deal of human nature. The union of a man and a woman in the social relation is not the creature of law, but the laws are its creature. A man and woman who can live happily together in their natural relation, are not easily separated. There are innumerable instances where couples live together without any bond but their own consent. The bond created by children is also a strong one and is not readily broken. The woman is especially tenacious for various reasons. Her more affectionate nature, her anxiety for her children, her comparative dependence, all render her more willing to suffer some ill than to fly to possibly greater ones that she knows not of. And this nature meets with its response in many men. Under a free system many improper associations could be broken up, and good ones could be formed. But on the other hand full scope would be given to both the attractions and repulsions of the moment, to which some persons of both sexes are subject; with the result of frequent temporary relations, or a form of heterogamy. So the objection to the abolition of marriage laws holds good as regards a certain type of character, a type which seems, moreover, to be the prevalent one in some races of men.

The principal object of reform in this matter appears to the writer to be the securing of a practicable and protected monogamy. While this system preserves and develops the highest type of character when successful, when not judiciously or truly carried into effect, it may and does produce quite the opposite result. Divorce laws designed to meet the difficulty have been enacted by various countries. But in not a few of them they are inadequate to meet even the most ordinary contingencies, while in none are they applicable to the cases which arise among the best people. It ought not to be necessary to expose to public gaze the inner chambers of the heart; and to describe the life and death of the affections in legal phraseology is to render them ridiculous. Moreover, it is safe to leave a question in which two persons are so deeply interested, to themselves alone for solution, under such safeguards as are necessary for the conservation of the good which the monogamic system brings to society at large. That the interests of society require that matrimonial mistakes shall not be corrected, I do not believe; and the attempt to force people to live together in the marriage relation who, after a full



and fair trial, have found it impossible to do so in harmony or comfort, is a "relic of barbarism," fully as objectionable as the "twins," against which American politics so protests. Moreover, this attempt is rarely successful, but is responsible for a large part of the heterogamy that exists in so-called civilized countries. The number of married people to be found among prostitutes and their supporters is very large. Under proper marriage laws, a great proportion of these people might become monogamic, to their great advantage in every respect.

Of course, this cannot be done if legislators can be induced to share the absurd opinions prevalent in some quarters on this subject. In illustration, I cite the following resolutions, adopted by a meeting of ministers, held in Philadelphia, a few years ago:

"The chief requirement is the repeal of all laws allowing divorce for any offense except marital infidelity.

"Divorce should not be granted for marital infidelity when it is committed by connivance on the part of the plaintiff, or the application is not made within three years of the commission of the offense, or when the plaintiff also has committed the crime, or when the plaintiff has not resided in the State for a period of three years.

"When the divorce is granted for marital infidelity, the guilty party should not be allowed to marry again during the life of the plaintiff.

"In lieu of divorce for cruelty, substitute separation for a limited time or forever, and make provision for the support of the wife by the husband. Misconduct on the part of the plaintiff should be a bar to separation.

"The hearing of facts in all cases should be public."

This report was freely discussed by the ministers present, and it was ratified.

These resolutions seem expressly designed for the perpetuation of the real "twin relics of barbarism" of American society; compulsory marital relations and prostitution. Their origin is evidently due to that undefinable superstition against marital changes which is common in the less informed circles of society. It is a superstition that has its foundations in good, but one whose branches, spreading too widely, have been rather a upas tree than a healer of nations.

Extreme views on this point are probably largely due to the unconscious jealousy which forms so important an ingredient in human nature. It is charged against reformers who would do away with marriage laws that their views are only adapted to an ideal world, and not to real men and women; and the charge appears to me to be just. But it is equally applicable to the conservatives on the other side of the question, whose opinions betray either an ignorance of their kind, or an inhuman disregard of their happiness. Happily married people, and unmarried women, too often regard with utter indifference, mostly the result of ignorance, the sufferings and misfortunes of a large proportion of their fellow-beings; and, like

Dives, who has just dined, wonder how Lazarus can be so hungry. They confound misfortunes with crimes, and endeavor to punish those whom fate has already punished too severely. Any attempt to improve the condition of men in this direction inspires them with a groundless fear of some dire contingency which they do not understand and cannot explain, but which exists at their very doors, largely sustained by their own blindness and often insincerity.

It is in fact time that the merits of the present system of marriage shall be weighed against its demerits. I have no sympathy with those complacent dreamers who declare that no reform is necessary. The question is a pressing one, and the facts are before us. Eighteen hundred years of Christianity finds us in as great difficulties as ever, but with our sense of justice quickened, and our sympathies developed. We have as a basis the fact that most of the white race at least, are capable of a generous and self-sacrificing intersexual passion, which, if treated with reasonable consideration, is of a lasting character. That knowledge is now attainable which shows what the natural relations of the sexes are, so that neither sex need ask impossibilities of the other. The man must not demand of the woman the unsensitiveness and mental solidarity that he finds in his own sex; nor must the woman expect to control the man by force, whether of the tongue or otherwise. It is also safe to believe that no laws should separate a man and woman who have loved each other long enough, nor are any laws necessary to keep them together.

In this question the true position appears to the writer to be the golden mean. *In medio tutissimus ibis* is especially applicable here. What is necessary is that matrimonial changes shall be removed from the domain of caprice, and shall be only permitted after a full and fair trial. This object can be attained by a system of civil marriage contracts which shall run for a definite time, and terminate under conditions to be mentioned later. These contracts should be of the same value and effect as the existing marriage contract, and have the same bearing on the questions of support, property, and divorce, in general, as now provided by the laws of Pennsylvania, which are among the most reasonable in this country in this respect. The time limits of these contracts should increase rapidly so as to prevent women of mature years being deprived of support. The first contract ought not to run for less than five years, so as to give ample opportunity for acquaintance, and for the recovery from temporary disagreements. This is more just to both parties than the law as it existed among a nation of antiquity, where a couple were required to devote a year to the experiment before marriage was permitted. The first contract should be terminable at the desire of either



party. The second contract should run for ten or fifteen years, and should then lapse only by desire of both parties. A third contract providing for permanent relations should be then available. The practical operation of this system of contracts would be as follows: Previously unmarried persons should be required to take the first or five years contract. No choice should be permitted in the matter, for then each party would have a right to suspect the confidence of the other. They should take the contracts in the order stated, and should not be permitted to take one of shorter time on the expiration of one of longer time, if they desired to change their partner. Persons who had been married, and who desired to marry again, should be compelled to adopt the longer of the two contracts due to either of the parties, should their conditions differ in this respect. This would maintain the progressive increase in the duration of contracts which the project contemplates, and thus prevent a continued succession of short contracts. There should, however, be opportunity for the duplication of a second contract in the case of a person who should marry a previously unmarried person, which is a concession in favor of the inexperience of the latter person. In all cases of change the disposition of children would be the same as is now provided for by the laws relating to divorce. Disputes over the custody of children show that they do not generally, under such circumstances, lack for interested caretakers.

Such a system would offer a safe opportunity for the correction of errors in matrimony, and a chance for the reorganization and recommencement on a more hopeful basis of the lives of persons who have made such mistakes. It is probable that a first contract would furnish the experience necessary to a better understanding of the relation, and of a better line of conduct in practical life. A second change would be necessary to relatively few persons. In this way an immense number of marriages would be placed on a basis which would be both permanent and happy, and thus an immense amount of sexual irregularity and evil be wiped out of existence. The system may be found to be susceptible of improvement in some respects, and it might seem rather complex. But the laws regulating contracts as to the holding of ordinary property, are numerous and complicated, and we should not hesitate, for such a reason, to protect and cherish what is of more value to man than any material objects whatsoever.

The question of support presents the following aspect: The support of children by the father without aid from the mother would accord with justice, while a woman who had surrendered a marriage contract should occupy the position of a single woman, and return to her parents or support herself. The support of a woman while a wife is as obligatory on a man as

that of children, but the support of a woman to whom he is no longer married, should devolve on those who are her natural supporters in his absence. The proposition that a woman is injured by marriage, does not apply generally to a term of five years, and in that case she needs no financial equivalent. For the dissolution of the second contract, in later life, her own consent is necessary.

Various objections can be made to the above proposition. Some of these may be briefly noticed. First, that of the supernaturalist who believes that the present system is of divine origin and cannot be improved. He points to the language of Christ who forbade divorce, and to the expression "what God hath joined together let no man put asunder." It is, however, perfectly clear that marriages have been made between persons whom God did not join together. Christ also when he heard the expressions of astonishment from his disciples, relaxed somewhat and declared that his doctrine was for those who could "bear it." It is pretty evident that like universal peace, the world is not yet ready for the abolition of divorce, and why the teachers of the Christian religion should be so much less intelligent on this point of ethics than they are on most others, is only another illustration of the assertion made at the opening of this article, that we are not yet fully civilized in this direction.

The next objection is a sentimental one. When, at the expiration of the first contract, the one who has "*laisser s'aimer*" declines to continue the arrangement with the other party, who has done all the loving, it is easy to exclaim: What a hardship! But the hardship of being bound to one that you cannot love, is the greater of the two, for it is without remedy. The hardship of the unmarried person has a remedy; time and the expulsive effect of a new affection. It is a hardship which women are often compelled to inflict on men in single life, who generally survive it. It must be also remembered that the inferior in moral endowments will always love the superior in married life, a love which the superior may not be able to return. Or, it may happen that the source of the attraction lies in superior intellectual power. It is from gross *mésalliances* on these accounts that relief is needed, and the inferior person will be necessarily the loser.

Another objection comes from the chivalrous man, who fears for gentle women, possibly turned out on the world without support and with prospects blighted. This could only occur from the non-assumption of a new contract at the expiration of the first. The single opportunity for change after this requires the consent of both parties. But I expect a much larger number of women would be benefitted than injured by the opportunity for change offered at the expiration



of the first contract. It seems important that they should have the opportunity of terminating, of their own choice, an unfortunate relation. In fact, I suspect that more women than men would avail themselves of the opportunity, since a large majority of the divorce cases that come before our courts are brought by women. As to either sex having been injured by the experiment of a first contract, this would rarely be the case. Both parties would be greatly improved by it, and (if not too old) more desirable partners than the inexperienced. It is often a painful process to receive an education, and while one cannot always regard one's educator with pleasure, one can begin with another person, much improved in morals and manners. The five-years contract would also furnish to women a much needed protection against mere fortune-hunters.

Insincere objections will be made by heterogamists of both sexes, who speak of the sanctity of marriage only to cloak their vicious taste for promiscuity. People who talk of "stirpiculture" and the like will also probably object more sincerely. I can only say of this doctrine that it appears to me to have the evil effect of heterogamy on women, and to involve the sacrifice of the highest social affections of the race, and all that that carries with it.

In general, it will be urged against any reform in this direction that it weakens the strength of the bond and impairs the mutual confidence of man and wife. To this it may be answered that this could not occur if the law were compulsory on all alike. Moreover, the possibility of change would, in most instances, exercise a salutary influence over the conduct of the contracting parties.

A word may be now added on the subject of polygamy. This system has been made the target of abuse by press and people in this country; by the former largely as a political issue with which to get votes. The much worse and more barbarous system in our midst is not so frequently referred to. This is remarkable, in view of the fact that the prevalent form of religion reveres as holy men many polygamists, and professes to observe the ethical rules of the teacher of the New Testament, who never forbade it. He was wiser than some of our modern legislators, for he knew that the best way to deal with polygamy was to let it alone. It is a system of limited application in any country. None but the rich can sustain it, and if voluntary on the part of the woman, is only practicable under exceptional circumstances. But the heterogamic relation, unlike polygamy, involves, for men, no responsibility for women or children, and is much less expensive. Is this the reason why it is preferred?

A limited polygamy has been permitted by many nations of much civilization. The Roman law allowed

three wives. While the system of time-contracts here proposed would do away with polygamy under most conditions, there remain a few possibilities where it would be beneficial. For instance, one party to a first contract might be anxious to take a second contract at its expiration, while the other would decline it. But he or she might be willing to continue and take a second contract with the declining party, although he or she might take one with another person. This would be truly voluntary polygamy or polyandry, and if agreed to by all three parties, I see no objection to its being permitted. Under ordinary circumstances, very few persons would be found willing to make such a contract, but there are some cases of hardship which such permission would remedy. Such, for instance, would be the case where the man or woman had become the victim of a chronic disease; or, where either party should be childless, and in other contingencies that can be imagined. It must be understood that this suggestion involves no compulsion in any direction, and that it involves full responsibility in all directions precisely as under our present laws.

But apart from the objections already mentioned, polygamy constitutes a burthen upon men which impairs or destroys their effectiveness in any other direction. Little progress in the arts and sciences could be expected of a polygamous people, since their resources will be chiefly absorbed by their unwieldy domestic establishments, and the ways and means of supporting them.

#### DEATH, LOVE, IMMORTALITY.

How is it that our poets so often set into opposition the ideas, love and death? Is there a secret connection between them? and if so, can that connection be explained?

The Hebrew poet in the song of songs, sings:

"Set me as a seal upon thine heart,  
As a seal upon thine arm;  
For love is strong as death;  
Jealousy is cruel as the grave;  
The coals thereof are coals of fire,  
Which hath a most vehement flame.

"Many waters cannot quench love,  
Neither can the floods drown it:  
If a man would give all the substance of his house for love,  
It would utterly be contemned."

Love is strong as death, nay it is stronger; for if there is any power that can conquer the grimmest foe of man, it is love. Love therefore, as the conqueror of death, represents Immortality.

How many foolish conceptions of immortality obtain among mortals, and how often have they been refuted by the sages of all creeds and of all philosophies! Nevertheless, the belief in Immortality is as firmly rooted in the souls of men to-day as it ever has been in past ages. We have of late read that beautiful passage of the American heretic who rejects all religion,



who hates Christianity, and is in every respect an unbeliever. He has no ridicule, no flippant word however, for Immortality; he says:

"The idea of immortality, that, like a sea, has ebbed and flowed in the human heart, with its countless waves of hope and fear beating against the shores and rocks of time and fate, was not born of any book, nor of any creed, nor of any religion. It was born of human affection, and it will continue to ebb and flow beneath the mists and clouds of doubts and darkness as long as love kisses the lips of death.

"I have said a thousand times, and I say again, that we do not know, we cannot say, whether death is a wall or a door—the beginning, or end, of a day,—the spreading of pinions to soar, or the folding forever of wings—the rise or the set of a sun, or an endless life, that brings rapture and love to every one."

What is death? Is it not the destruction of that form of ours after it has become unfit for further use? It is maintained by the agnostic orator that we cannot know whether it is the rise or the set of a sun. Let me answer that to us death appears like the set of a sun; but we know that the sun itself never sets.\* As its light never ceases to shine, so life is immortal.

What is love but our longing for immortality? And the old man who looks upon his youthful sons and enjoys the baby-smile of his grandchild,—does not a new vista of life open to him? And is not that life that beams in the eyes of his children and grandchildren his very own life? Does he not commence a new career in every one of them? Is it mere sentimentality, an empty figure of speech if we say that Love has conquered death indeed? Let death have its prey, if we but live again, if instead of remaining as we are, small, limited, egotistic, we may grow and expand, if new chances of commencing life over again are given unto us, and if guided by love we can determine ourselves, how we may be improved in future generations! Let death have its prey, if our better selves, our noblest thoughts, our highest ideals, our best deeds will live in, and have a beneficial effect upon, future generations.

Love is not limited to sexual love. Love is enthusiasm for everything good and great; love is every true and noble idea worth being thought again and again, and to be propagated to the most distant generations.

Our body, the visible appearance of our ego, is sure to die; and there is no ground for bewailing it, for what is the use of preserving just this combination of dust with all its little defects,—a combination whose psychical components are a medley of a few true ideas, of a few lofty aspirations mixed with errors and prejudices? Is it worth while to preserve this alloy as it is? O no! It is thousand times more preferable to preserve the good, the true, the ideal thoughts only,

as Nature really does, and let errors as well as prejudices perish as they deserve.

Immortality is no fiction, and a craving for immortality is a natural feeling of the human heart. True immortality is not possible by egotism, for there exists no such a thing as an immortality of the ego. True immortality is realized by love only; and love is not only the affection toward our beloved ones; love is every aspiration for truth, every hope for progress, and every enthusiasm for the ideal. Love is the broadening of our soul beyond the limit of the ego. But it is not enlarged egotism; either; love has always something of a humanitarian and a universal spirit. It thrills our pulses with the life of the All and grants in a fleeting moment the bliss of a whole eternity.

Immortality is not presented to us by some generous donor as a gift. It must be gained by our own efforts; by our struggling for it must it be deserved. But there is that comfort in it that it can be gained by every one who believes in Love.

In this spirit the German poet says:

"Out of life there are two roads for every one open:  
To the ideal the one, the other will lead unto Death.  
Try to escape in freedom as long as you live, on the former,  
Ere on the latter you are doomed to destruction and death,"  
P. C.

#### THE SHRINKAGE OF VALUES.

BY WHEELBARROW.

I am just now engaged in exploring the dark recesses of monetary science, but I don't make much progress. It is a mammoth cave, full of labyrinths and passages. I fear that my guides are ignorant also. They pretend to know all its pathways, but the lights they carry only flicker in the gloomy vastness; guides and followers stumble along together. To rich men, the study of finance and its laws, may be of little consequence, but to me, whose wages never exceeds \$400 a year, it is of the highest importance that the money of the country should be of good material, and strong in market value. The rich man can protect himself against its fluctuations and its changes, its expansions and contractions, but I am helpless. The Secretary of the Treasury never consults me as to whether he shall buy bonds or sell them. The Chairman of the Ways and Means Committee never waits upon me at my office in the Sand Bank, to enquire whether I desire the coinage of silver dollars to go on or stop; the Judges of the Supreme Court do not care whether I want the legal tender act sustained or declared unconstitutional. Banking syndicates, Boards of Trade, Wall Streets, Incorporated Sweat Extractors of every kind, never inquire whether my dollar and-a-half a day will buy me enough to eat or not. For these reasons I desire to see the monetary policy of the country on a solid and scientific foundation. To me it is not a matter of party expediency; it is a question of bread.

\* Cf. Schopenhauer, Parerga und Paralipomena, über die Unzerstörbarkeit unseres Wesens durch den Tod.



I don't know how to build a house, but I can tell a good job of work when I see it. If I see a crack in the wall, I suspect a bad foundation, and I know that a botch has had something to do with it. When I find the Secretary of the Treasury paying off the 3 per cent. bonds, and further discover that the United States of America has bound itself by solemn treaty with the United States of Wall Street not to pay its 4 per cents, until the year 1907, I know that the job was a botch, and that the Congress who did the work was composed of a lot of "plugs." Either that, or they were knaves making bad laws for their own profit.

Much of the pleasure of my life has consisted in wishing my life away. My joy of an afternoon has been to see my shadow lengthen in the sun. As it grew longer my time of rest grew nearer. I have been honest than other men, because I was compelled to be. The luxury of cheating is not mine, for somebody is watching me forever. I have stolen a little rest occasionally by the fraudulent device of lighting my pipe with contrary matches, which would never burn until the impatient boss yelled at me, "Tom, it takes you a long time to light that pipe." One day when this occurred I seized my 'barrow, and walking down the plank, I thought like this, "He will not allow me to wheel up a light load; he will not permit me to clip a moment of time, is he so particular to pay good money for wages?" It flashed upon me all at once that he always paid me in the cheapest money that was current at the time, and it occurred to me also that I had been howling for payment in cheaper money still. The experience came full upon me the other day when, picking up a Chicago paper, I read this alarming heading to an editorial article, "Drifting toward dear money." It was evidently written by one of the stumbling guides of the mammoth cave.

What is dear money? Something dreadful certainly, for "drifting" suggests a ship, helpless, and rudderless moving to its doom. My fright ended when on reading the article I discovered that "dear money" meant something that would buy more goods than money of the cheaper sort; and when on reading further I saw that "dear money" included the calamity of cheap rent and clothes and fuel and bread, I shouted, "Let her drift." The artificial values that have been placed by bad laws upon the blessings of life, must come to an honest level some time or other, and the sooner the better for me.

The prime cause of this impending calamity, according to this bewildered guide, is the "virtual contraction of the total volume of exchangeable credit caused by the steady withdrawal and cancellation of about \$2,000,000,000 of United States National Bonds, which, in our exchanges with Europe, had performed the functions of an international currency jointly with

gold." Occult phrases have always been the stock in trade of conjurers, and this ponderous jargon about "exchangeable credit," complicated and confused with thousands of millions of dollars, is the device of a lost guide to conceal his ignorance of the road. He did not see that the bonds had been "cancelled" by payment, and that their vacant places had been filled by actual gold money, created by the labor of the people, and drawn from them by the surgical process known as taxation. "Exchangeable credit" is only the reverse side of a coin having "exchangeable debt" on its obverse side. A bond is only a promise to pay a debt, and the credit in it and the debt in it must travel the world together.

A great many fictitious attributes of goodness have been given of late to these bonds. The beneficent national banks have been built upon them; they furnish a convenient savings-box for widows and orphans to keep their money in; they make the "coupon clippers" loyal to the government, and many other miracles they do; now we are told that they make a fine article of "exchangeable credit," and "perform the functions of an international currency." If those bonds have all these virtues they are blessed things, and the war that brought them is entitled to all praise. I shall never believe that, for I was there from the beginning to the end. It was a bloody sacrifice; and the only consolation it ever brings to me is that it bought the freedom of the slave. The price was the highest ever paid for freedom in this world, but then, freedom is cheap at any price; many of the war curses are embalmed in those bonds to plague our children and our grand-children for a long time to come. The interest on them has been squeezed out of the laboring man, and converted into usury to oppress him. For all that I would not flinch a hair's breadth from either the letter or the spirit of the contract, but would redeem it to the last penny. I would stand up to a hard bargain as faithfully as to an easy one.

It is complained that this appreciation of money has diminished the value of real estate. The effect of this disaster upon me is that I must pay less rent. It is also complained that it has lowered the value of all merchandise. The only way in which this "shrinkage of values" is made manifest to me is in lower prices for everything I buy. Why then should I be troubled? "Because," retorts the capitalist, "it means a shrinkage of wages too." I am not afraid of that. It is a lying old ghost that will never scare me again. The resources of the country still exist; the necessities of mankind are just the same, and the labor of men upon those resources is as valuable as it ever was. There is no "shrinkage of values." Bad laws made by bad men in the interest of speculation, usury, and monopoly, have made an artificial increase of prices, and



when those prices begin to fall in obedience to the claims of honest industry, extortion sets up a howl that "values are shrinking." The "value" of a house cannot shrink, except from physical causes, any more than the walls can shrink. The rent may shrink when the artificial causes that have swollen it cease to operate, but the honest and legitimate value of the house remains the same. I think the time has come when workingmen may profitably unlearn much of their old economy, and reverse their opinions as to the blessings of cheap money. Dear money is the rightful reward of honest labor, and that money we should insist upon.

## CORRESPONDENCE.

### POLITICS AND RELIGION.

*Friend Hegeler:—*

I have just read thy article on "Protection" in THE OPEN COURT and think it unethical. Now, in the *Friend Int.*, a copy of which I enclose thee, is published a political article on a "lyleaf," of which I doubted the propriety in a religious journal, but they did it in time for a reply before the election, upon this "burning question." *This thee did not do!* and thee has for this reason greatly mortified me. I expected better things of THE OPEN COURT. I am an older man I judge than thee, and I saw the United States drained of its gold by a low tariff in the time between the years 1846 and 1857, so that in 1861 we had to pay 12 per cent. on account of government loans under James Buchanan.

I was engaged in active business during the Forties, and am a witness of the general depression and embarrassment which was caused by the abrogation of the protective tariff of 1842, and the substitution of the revenue tariff of 1846. The price of land in the neighborhood of Philadelphia which had enhanced in value, received a great check, and all kind of business was depressed by the change of policy on the part of the government.

Respectfully, DAVID NEWPORT.

WILLOW GROVE, November 5, 1888.

*David Newport, Esq.,*

WILLOW GROVE,

MONTGOMERY CO., PA.

MY DEAR SIR:—Your favor of the 5th inst. has reached me to-day. I wish I had succeeded at an earlier date in writing the article on "Free Trade and Protection," for the reason that it would then have had more practical effect, as well as the reason that subscribers of THE OPEN COURT could thus have had an opportunity to express their views before the election.

Being no professional writer, I did not make any progress in writing the article but until a few days before its publication; when warming up under the opposition to my views in local circles. The article was not finished until about 11 o'clock at night before publication day.

The idea you utter, that the propriety may be doubted of publishing a political article in a religious journal, has occurred also to me and has contributed to its late appearance.

I have arrived at the conviction that THE OPEN COURT has to treat the ethical side of important political questions. Philosophical opinions that have assumed the religious character force their bearers openly to apply them to all important issues of mankind.

Sincerely yours

EDWARD C. HEGELER.

LA SALLE, November 11, 1888

## BOOK REVIEWS.

MORAL-PHILOSOPHIE. Gemeinverständlich dargestellt von Georg von Güzky. Leipzig: Verlag von W. Friedrich.

Prof. Güzky's latest publication will be the more interesting to American readers as the author has allowed himself to be not a little influenced by American thinkers, especially Dr. Stanton Coit, Wm. M. Salter, and Felix Adler. His book represents a moral philosophy, which finds its most appropriate realization in the societies for ethical culture of the United States. The author, whose former publications were most closely allied to utilitarianism, it seems, has modified his position to some extent. He bases his ethics now on the maxim: "*Strebs nach Gewissensfrieden, indem du dem Wohle der Menschheit dich weihst.*" (Strive for peace of soul by devoting thyself to the welfare of humanity). This ethical system is explained, on 540 pages, in chapters treating of the basis of morals, the aim of life, duty, virtue, free-will and determinism, responsibility, morals and theology, nature and morals. Prof. Güzky finds a poetical expression of the fundamental truths which he has laid down in his ethics, in Goethe's poem:

Man must be noble  
Helpful and good!  
For that alone  
Distinguishes him  
From all things  
Known to us.

Nature around us  
Is without feeling:  
The Sun sheds his light  
O'er the good and the evil;  
The Moon and the Stars shine  
Upon the guilty  
As well as the honest.

Storms and torrents,  
Hail and thunder,  
Roar their course  
Seizing and taking  
All before them,  
All alike.

Thus also Fortune  
Gropes 'mid the crowd,  
Seizing now the schoolboy's  
Curly innocence,  
Now, too, the gray crown  
Of aged guilt.

But man can accomplish,—  
Man alone,—the impossible;  
He discriminates,  
Chooses and judges;  
To the fleeting moment  
He gives duration.

His alone it is,  
To reward the good  
To punish the wicked,  
To save and to rescue,  
To dispose, with foresight,  
The erring, the straying.

Let the noble man  
Be helpful and good,  
Untriflingly do  
What is useful and just!



JOHN BODEWIN'S TESTIMONY. *Mary Halleck Foote*, Boston: Ticknor & Co.

We are glad to see this story, which we have always liked, in its new and cheaper form. (Ticknor's paper edition). It is, we believe, the author's first long story, and one that well assures her ability in that line of work, both in the construction of plot and delineation of character. C. F. W.

THE ROMAN CATHOLIC CHURCH AND THE SCHOOL QUESTION. By *Edwin D. Mead*, Boston: 1888. George H. Ellis, 15 Cents.

The above little pamphlet is a cool and impartial criticism of the Parochial School System in the United States. It is written from a purely secular standpoint, and proposes to meet the arguments and pretensions of the advocates of that system by considerations of public policy and national interest. It calls upon the fair-minded of all religious denominations to avoid the narrowing influence of a sectarian education:

" \* \* \* We do not want, any of us, Catholic reading-books, nor Quaker spelling-books, nor Jewish geographies, nor Baptist histories, nor Presbyterian grammars, nor High Church cook books, nor Unitarian geologies, nor Trinitarian arithmetics. \* \* \* I wish for one that we might see a decadence of private schools altogether. No one could speak more warmly than I of many of the private schools of Boston and of other cities, and the private school doubtless has a certain proper place, but I do not wish to see the system grow. I have little more affection for the Protestant private school than for the Catholic. The private school tends to create and encourage class distinctions, it draws away the personal interest of many parents, men whose interest we most need, from the public school, it does not make for sturdiness, it does not make for democracy, it does not make for public spirit."

POETRY, COMEDY, AND DUTY. C. C. Everett. Boston: Houghton, Mifflin & Co.

Prof. Everett is well, if not popularly, known as one of the most thorough and cultured thinkers we have, and a volume from his pen is sure to command attention from a large class of thoughtful readers. The grouping together poetry, comedy, and duty as separate but kindred factors in the evolution of character may seem an odd combination at first, yet all doubt of the worth and truth of the author's purpose wears away as soon as one begins to read. Under poetry Prof. Everett treats somewhat at length of the function of the imagination, which he defines as "the power of mental vision, a power which creates that which it beholds"; and a necessary element of human consciousness and action everywhere. He speaks of the use which science makes of the imagination, as illustrated in Tyndall's great essay on this subject, and shows very clearly that the successful business man must also rely on this same faculty. "Art and poetry are methods or instruments of the imagination, and these complete the world." The next portion of this essay is entitled "The Philosophy of Poetry," in which poetry is counted among the representative arts, since "even in its lyrical form it does not directly express passion; it represents it." In a study of the "Poetic Aspects of Nature" we are led to see how beauty, expressed in poetic images and forms, becomes an essential factor in human conduct and aspiration. We have not so much space to bestow on the essay on Comedy, in which the author seeks to show the compensating influences of the comic; "In the comic we are taken into the world of surfaces." The real world, even that of beauty imposes too severe a strain on the mind when in constant contemplation, which the humorous relieves. The essay on Duty is earnest, philosophical, and pervaded with the glow of a fine idealism throughout. With John Fiske, the writer gives high rank to the power of sympathy as a motive in human action. In conclusion we are shown how poetry, embodying noble and beautiful images, serves as a constant inspiration to man, and

comedy as "a great corrector" of exaggeration. Prof. Everett's book is both valuable and interesting. C. F. W.

## NOTES.

Mr. David Newport's remark as to the causes of financial depression in the Forties are not in harmony with the views of Mr. Hugh McCulloch as set forth in his recently published book, "Men and Measures of Half a Century."

## BOOKS RECEIVED.

MEN AND MEASURES OF HALF A CENTURY, by *Hugh McCulloch*, \$4.00. New York. Charles Scribner's Sons. A. C. McClurg & Co.  
REALISTIC IDEALISM IN PHILOSOPHY ITSELF, by *Nathaniel Holmes*, 2 Vols. \$5.00. Houghton, Mifflin & Co.  
EUGEN DÜHRING. Eine Studie zu seiner Würdigung, by *Dr. H. Druskowitz*, Heidelberg: Georg Weils.  
THE FAITH THAT MAKES FAITHFUL, *William C. Gannett*, *Jenkins Lloyd Jones*, Chicago, Charles H. Kerr & Co.  
SELECTIONS FROM KANT. Selected and translated by *John Watson*, LL.D. New York. MacMillan & Co. A. C. McClurg & Co.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

## CHAPTER XXVI—Continued.

The Professor received the desired permission. Ilse made her preparations for the journey with a solemn seriousness which struck all around her. She was now to approach the presence of her Sovereign, whom she had regarded from a distance with shy respect. It made her heart heavy to think that the son had never spoken of his father, and that she knew nothing of her illustrious master but his countenance and manner. She asked herself, anxiously: "How will he treat Felix and me?"

Whilst Felix was collecting all the books and documents which were indispensable for the journey, the Doctor was standing sorrowful in his friend's room. He was satisfied that the Professor could not withdraw from the duty of seeking for the manuscript; and yet his invitation to Court did not please him. The sudden breaking of their tranquil life disturbed him, and he sometimes looked anxiously at Ilse.

Laura sat, the last evening, near Ilse, leaning on her shoulder, weeping. "It appears to me," said the latter, "that something portentous lies in my path, and I go in fear. But I leave you without anxiety for your future, although you have sometimes made me uneasy, you stubborn little puss; for I know there is one who will always be your best adviser, even though you should seldom see each other."

"I lose him when I lose you," cried Laura, in tears. "All vanishes that has been the happiness of my life. In the little garden which I have secretly laid out for myself, the blossoms are torn up by the roots, the bitter trial of deprivation has come to me also; and poor Fritz, who already was practicing resignation, will now be quite lost in his hermitage."

Even Gabriel, who was to accompany the travelers to the capital and await their return home from abroad at the house of Ilse's father, was excited during this

\* Translation copyrighted.



period, and often disappeared into the house of Mr. Hahn when it became dark. The last day he brought home from the market a beautiful bird of uncommon appearance, with colored feathers, pasted on a sheet, with the inscription: "Peacock from Madagascar." Gabriel wrote, in addition, in clear, stiff characters: "Faithful unto death." This he took in the evening to the enemy's house. A whispering might be heard there, and a pocket-handkerchief be seen, which wiped the tears from sorrowful eyes.

"No allusion is meant to the name of this family," said Gabriel, holding the bird once more in the moonlight, the beams of which fell through the staircase window upon two sorrowful faces; "but it occurred to me as a remembrance. When you look at it think of me, and the words I have written on it. We must part, but it is hard to do so." The honest fellow pulled out his pocket-handkerchief.

Dorchen took it from him; she had forgotten her own, and wiped her eyes with it.

"It is not for long," said Gabriel, consolingly, in spite of his own sorrow. "Paste the bird on the cover of your trunk, and when you open it and take out a good dress, think of me."

"Always," cried Dorchen, weeping. "I do not need that."

"When I return, Dorchen, we will talk further of what is to become of us, and I hope all will go well. The handkerchief which has received your tears shall be a remembrance for me."

"Leave it to me," said Dorchen, sobbing. "I must tell you I have bought wool, and will embroider you a wallet. This you shall carry about you, and when I write, put my letters in it."

Gabriel looked happy, in spite of his sorrow; and the moon glanced jeeringly down on the kisses and vows which were exchanged.

#### CHAPTER XXVII.

##### THE SOVEREIGN.

The Hereditary Prince was walking with the Chamberlain in the gardens which surrounded the royal castle on three sides. He looked indifferently on the splendid coloring of the early flowers and the fresh green of the trees; to-day he was more silent than usual; whilst the birds piped to him from the branches, and the spring breeze wafted fragrance from the tops of the trees, he played with his eye-glass. "What bird is that singing?" he asked, at last, awakening from his apathy.

The Chamberlain replied, "It is a thrush."

The Prince examined the bird with his glasses, and then asked, carelessly, "What are those people ahead of us carrying?"

"Chairs for the pavilion," answered the Chamber-

lain; "it is being arranged for Professor Werner. The house is seldom open now; formerly his Highness, the Sovereign, used to live there occasionally."

"I do not remember ever having been in it for a very long time."

"Would your Highness like to see the rooms?"

"We can pass that way."

The Chamberlain turned towards the pavilion; the Marshal was standing at the door; he had come to see that everything was in order. The Hereditary Prince greeted him, cast a cursory glance at the house, and was inclined to pass on. It was a small grey-stone structure, in old fashioned style; there were shell-shaped arabesques round the doors and windows, and little dropsical angels supported heavy garlands of stone flowers with lines which appeared to have been cut out of elephant's hide; the angels themselves looked as if they had just crept out of a dirty swamp and been dried in the sun. The dark building stood amid the fresh verdure like a large chest, in which all the withered flowers that the garden had ever borne, and all the moss which the gardener had ever scraped from the trees, seemed to have been kept for later generations.

"It is an uninviting looking place," said the Prince.

"It is the gloomy appearance that has always pleased his Sovereign Highness so much," replied the Marshal. "Will not your Highness examine the interior?"

The Prince passed slowly up the steps and through the apartments. The musty smell of the long-closed rooms had not been removed by the pastiles that had been burnt in them; logs were blazing in all the fireplaces, but the warmth which they spread still struggled with the damp air. The arrangement of the rooms was throughout orderly and complete. There were heavy *portières*, curtains with large tassels, and fantastic furniture with much gilding, and white covers for the preservation of the silk, mirrors with broad fantastic frames, round the chimney-piece garlands carved in grey marble, and upon it wreathed vases and little figures of painted porcelain. In the boudoir, on a marble console, there was a large clock under a glass bell; a nude gilded nymph poured water over the dial from her urn which was turned to gilded ice. Everything was richly adorned; but the whole arrangement, furniture, porcelain, and walls, looked as if no eye had ever rested on them with pleasure, nor careful housewife rejoiced in their possession. There were remarkable things from every part of the world; first they had been placed in the large assembly-rooms which were opened at Court fêtes; then they had ceased to be in fashion, and were moved into side-rooms. It was now their destiny to be handed down from one



generation to another, and counted once a year to see if they were still there. Thus they passed a never-ending existence—preserved, but not used; kept, but disregarded.

"It is damp and cold here," said the Prince, looking round upon the walls, and again hastening into the open air.

"How do the arrangements please your Highness?" asked the Marshal.

"They will do very well," answered the Prince, "except the pictures."

"Some of them certainly are rather improper," acknowledged the Marshal.

"My father would be pleased if you could remove these. When is Professor Werner expected?"

"This evening," replied the Chamberlain. "Perhaps your Highness would wish to receive the guest after his arrival, or to pay him a visit yourself."

"You may ask my father," replied the Prince.

When the Prince went with his companion up the staircase to his own rooms in the castle, the Chamberlain began:

"The Professor's wife was very much pleased once with the flowers which your Highness sent her. May I commission the Court gardener to put some in her room?"

"Do what you think fitting," replied the Prince, coldly.

He entered his apartment, looked behind him to see if he were alone, and went with rapid steps to the window; from thence he looked over the level lawn and the blooming rows of trees to the pavilion. He gazed long through the window, then took a book from the table and seated himself in the corner of the sofa to read; but he laid the book on the table again, paced hastily up and down, and looked at his watch.

The Court dinner was over. The ladies cast a half glance behind them to see if the back-ground was clear for their retiring curtsies. The gentlemen took their hats under their arms. The Marshal approached the door, and held his gold-headed stick with graceful deportment—a sure sign that the royal party was about to break up. The Princess, who was still in mourning, stopped her brother.

"When do they come? I am so curious," she said, in a low tone.

"They are perhaps already there," answered he, looking down.

"I am going to the theatre to-day for the first time again," continued the Princess. "Come into my box if you can."

The Prince nodded. Information came to the Marshal, which he conveyed to the Prince's father. "Your teacher, Professor Werner, is come," said he, aloud, to his son. "You will undoubtedly wish to pay your

compliments to him." He then bowed to the Court, and the young Princess followed him out of the room.

The Chamberlain hastened to the pavilion. The Marshal followed more quietly. A royal equipage had brought the travelers from the nearest station. They passed rapidly by the trees in the park, the pleasure-grounds, and the lighted windows of the royal castle. The pavilion was no longer a shapeless building, as it appeared in the day, under the glaring sun, to the indifferent eyes of the courtiers. The moon lighted up the front, and shone with a glimmering halo on the walls; it threw a silver glitter on the cheeks of the angels, and on the solid broad leaves of their garlands, and brought out strongly on the bright surface of the wall the shadows of the projecting cornices. Wax-lights shone through the open door. Lackeys, in rich liveries, held heavy candelabra. The steward of the house, a friendly looking personage, in dress coat and knee-breeches, stood in the hall and greeted the comers with polite words. Following the lackeys, Ilse ascended the carpeted steps, on her husband's arm, and when the servant threw back the *portière*, and the row of rooms appeared shining with wax-lights, she could hardly suppress an exclamation of astonishment. The steward led them through the rooms, explained the disposal of them, and Ilse perceived, with rapid glance, how stately and comfortable they all were. She looked with admiration at the abundance of flowers which were placed in the vases and bowls. She wondered whether her little Prince had shown this tender attention, but was undeceived when the official announced that the Chamberlain had sent them. A pretty maid was introduced, who was to wait upon her exclusively. Gabriel stood in the ante-room considering where he and his traps would be taken, in order that the Professor's boots might, in the morning, be no dishonor to the splendor of the house. At last one of the lackeys showed him his room, and, like a good comrade, pointed out to him the lamps of a tavern, which for his leisure hours would be particularly agreeable.

Ilse went through the rooms as if stupefied by their splendor, and endeavored to open the window to let in some fresh air, for the strong fragrance of the hyacinths threatened her with headache. Then came the Chamberlain, behind him the Marshal, who was also an urbane gentleman of very refined appearance; and both expressed their pleasure at seeing the Professor and his wife. They offered their services on all occasions, and pointed out from the windows the position of the pavilion. Suddenly the lackey threw open the folding-doors, announcing "His Highness, the Hereditary Prince."

(To be continued.)



## FORMER CONTRIBUTIONS TO "THE OPEN COURT."

E. P. POWELL.

The American scholar, E. P. Powell, gives his views on "Language" in Nos. 24 and 26. He maintains that language, as a means of communication, is possessed by all the animal creation, even down to the lowest in the scale of being; that all communicate with one another; that all of them have a language to express their wants and especially to express hunger. This lies at the root of the principle of evolution, because "organic development is necessitated in the direction of organic power to express - to speak."

W. D. GUNNING.

Mr. W. D. Gunning's essay *Katzenjammer*, in No. 1, is a sprightly, half humorous, half serious lay sermon, sending shafts of light into the dark recesses of the mind. *Katzenjammer* is a German word, which means cat-sickness, and denotes a malady of body and mind which results from night-life. The owl, the night-hawk, the whip-poor-will and all the felines are night-prowlers. Men also have gone astray with the cats and become nocturnal; even Socrates, with all his virtues was somewhat addicted to *Katzenjammer*. *Katzenjammer* was a large factor in the decline of Athens and the chief factor in the fall of Rome. What a *Katzenjammer*'s-band was that of Cataline! What *Katzenjammer* was that of Nero fiddling in the light of burning Rome! Struggle for life drove one member of a certain family higher into the air, and another into the ground. The sun-seeker gained in eye and brain, the earth-burrower lost its eyes and retained only brain enough to guide it through the ground. Such are the fates of the mole and the bat. Igrasil the tree of life has been pushing its human fruit inward to the shade. We want a peripheral humanity lit by beams of science and sweetened and mellowed by active rays of the sun of righteousness.

MORRISON I. SWIFT.

In No. 23 Morrison I. Swift makes a vigorous appeal to the churches that they become actively interested in what is generally known as "The Social Problem," and that they take the lead in Christianizing the people after the manner practiced by Jesus in Judea and by his disciples, as related in the New Testament. Mr. Swift's language is clear, eloquent, pervaded by an ideal humanitarianism, and is not only respectful to the clergy but even reverent. He thinks the opportunities of the present and the future are in the hands of the churches, and that the clergy may lead the van of social progress instead of trailing along behind the baggage wagons, as they have so long been contented to do. "In this country," he says, "where the church has the allegiance of so large a portion of the people, where it represents a large proportion of the specially organized moral forces of the land, where finally its material resources are almost unlimited and the money power of the country is its friend and supporter, it would be possible for the church to bring about the reform that is needed, with little difficulty, if it desired to do so." Here Mr. Swift is confronted with the important objection that should the church take the lead in the social revolution or even in social reformation so far as "to establish such fair distribution of the products of human industry that superabundance and luxury will not exist," the "money power of the country" would cease to be its "friend and supporter" and the clergy might cease to be a priesthood. He presents the difficulty thus: "It is said by some that the pulpit will not go much beyond those who maintain it. This is to acknowledge that the opinions of the clergy are to-day bought and paid for, just as lawyers are hired and legislators sent to uphold the ideas of their constituency." Notwithstanding this difficulty, Mr. Swift sees "a slumbering lion in the Christian ministry, which will, ere long, awaken and put forth its formidable powers for the poor and the oppressed."

GEORG VON GIZYCKI.

In Nos. 25 and 26 is presented a very scientific article entitled "Determinism versus Indeterminism," by Georg Von Gizycki, Professor of Philosophy at the University of Berlin. This is in answer to Professor William James of Harvard University, who, in a lecture published in the *Unitarian Review*, had maintained the doctrine of *indeterminism*. The whole inquiry relates to the Freedom of the Will, and the terms are thus explained:

"The question whether the actions of the will are phenomena which act in conformity to a law, admits of only two answers—yes and no.

The philosophical theory which holds that they do, has been called *Determinism*; that which says they do not is known as *Indeterminism*."

The argument, which is deeply philosophical throughout, and in some parts of it a demonstration, proceeds upon the theory that the human will is under the control of law, and that its actions are determined by necessity; that Freedom of the Will is never an accident, nor the offspring of caprice; that the reformation of an evil-doer is made by surrounding him with conditions whose laws will compel his will to act in the right way.

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## A PHILOSOPHICAL VIEW OF THE LAW OF CORPORATIONS.

BY CHARLES T. PALMER.

"The great teachers of the world are not those who enforce precedents, but those who unfold eternal principles."—*Munger*.

Once in four years the average man pays the debt of patriotism he owes to his country, for the remaining three his mind is absorbed in personal affairs; as far as public duties are concerned he is inactive. It is, perhaps, too much to expect that in return for the "blessings of liberty," men will practice "eternal vigilance"; but it is not too much to demand that every citizen rise to a just appreciation of his weight and worth in the community.

In a government like ours, with its complex system of laws, combining the positive enactments of legislative bodies and the rules of common law derived from the habits and customs of the people, the humblest has an importance equal to the greatest citizen. Not alone in political campaigns is his influence felt, but every day throughout the period of his citizenship his character, his habits, even his private opinions, impress themselves upon the laws of the land.

Public opinion is but an aggregation of the private opinions of many individuals, and public opinion may be styled the parent of law. Whether just or unjust, morally right or wrong, beneficent or iniquitous, so long as it constitutes the will of the majority, it will find an adequate enforcement; if not in acknowledged rules of law, at least in a biased administration of the courts.

The same influence which leads to the enactment of pernicious laws, leads also to an unjust discrimination in the enforcement of law. A popular prejudice has power to permeate the very sanctuary of justice, its influence is not less potent because courts are not conscious that they are swayed by it. The most important branch of the court consists of persons drawn direct from the body of the people. The jury brings to the trial of a case popular thought and feeling. Jurors are called as men to sit as judges, nothing separates them from their former selves but the "juror's oath." A man's prejudices are a part of him, they cannot be sworn away. The oath honestly taken may be honestly broken. It furnishes no adequate security that the cause will be well and truly tried. Every

citizen is liable to be called as a juror, and thus his private judgment is permitted to give tone and color to the administration of law. It is not true,—except in theory,—that the jury determines only the facts of the case; the jury takes the law from the court but makes its own application, and, according to its understanding, fixes the remedy. About all the substantive-existence law has, is bound up in the remedy afforded for the infraction of legal rights. With the power thus vested in every citizen to himself become a lawmaker, there seems a new dignity added to the privilege of citizenship, and it behooves every one to have a care as to how he forms his private judgment.

In determining questions of public concern, men turn instinctively to the expounders of law for enlightenment; they hang upon the lips of jurists, and receive all their first impressions from their words. They look for a simple explanation, and are given, not infrequently, a jargon of technicalities. More than one unhealthy public sentiment is traceable to some misinterpreted rule of law; not a few of the prevailing popular prejudices are based upon some false theory of the law.

At the bar of public opinion the rights of corporations are little regarded. The demagogue who can most skillfully cry down the "dangerous increase of corporate power" may hold the suffrages of the people in the hollow of his hand. Few men stop to inquire the merits of a controversy, after they learn that a corporation is on one side and a private individual on the other. At the bar of justice corporations are reduced to the same unenviable condition; it has passed into proverb that their rights there are as often nominal as real. In cases wherein a corporation is a party, a verdict followed by a judgment is recorded against it, regardless of the merits of the controversy, in substantially every instance. In the Circuit Court of Cook County, Illinois, in *Rubins Ad'mr. v. The Abbott Buggy Company*,—a case for damages for personal injury,—a juror was objected to and excused because in his capacity as bank-teller, he knew the defendant always met its commercial paper promptly. This was a repetition of the common practice every lawyer is familiar with. Unless a juror seems actually prejudiced against corporations, he is not accepted. It



is the scope of this article to consider the relation of this prevailing prejudice to the general principles of Corporation Law.

The popular conception of corporations, so far as it is capable of analysis, may be fairly stated thus:—They are regarded as a sort of abnormal growth,—sapping the strength of the body politic,—unsusceptible of exact classification. They are believed to have transcendent powers for the acquisition of wealth, which powers are not enjoyed by ordinary citizens, and to be endowed with the privileges and capacities of natural persons without being subject to corresponding responsibilities. Their very name is suggestive of monopoly, their material prosperity is attributed to some fostering care of the State. Righteous indignation taking the form of patriotism in the mind, is the natural consequence of such a belief. The conscientious man whose thoughts are colored by it, conceives it his highest duty to check the ravages of these monsters. An occasional vote, an occasional call to sit upon a jury, are his only opportunities for exercising this high function. The influence of the demagogue and the abnormal verdict are thus alike easily accounted for.

A corporation has by the courts been variously defined as:—"An artificial body of men." (1) "An artificial being invisible, intangible, and existing only in contemplation of law": endowed with "immortality" and "individuality." (2) "An artificial person." (3) A body corporate—an incorporeal hereditament possessed of neither body nor soul—a legal entity—separate and apart from the members who compose it. (4) "A franchise possessed by natural persons." (5) It is said to have "privileges, immunities, and capacities not enjoyed by its members as natural persons," (6) to be capable of acquiring rights arising *ex contractu*, and not to be amenable for its crimes.

An artificial body of men is either an abnormal growth unsusceptible of classification, or an absurdity. A franchise is a monopoly, or, at least, a chief element of monopoly. A being having *privileges not enjoyed by its members as natural persons*, seems to possess transcendent powers; and an artificial person vested with the power of making contracts, yet exempt from the criminal jurisdiction of the State, appears to be endowed with the attributes of natural persons without being subject to corresponding responsibilities. Considering the light that has been given them, the people have judged with marvelous accuracy.

It will be urged that the language of the law is technical, and when rightly understood cannot be

given such interpretation. The unprofessional mind always understands language in its ordinary meaning, but, aside from this significant fact, it is the settled doctrine of the law sustained by an almost unbroken line of precedent, that a corporation is an artificial person possessed of privileges and immunities not enjoyed by its members as natural persons; that it may enforce its rights arising out of contracts, and is not punishable for its criminal offenses.

Amid all the confusion which this doctrine has engendered, among all the qualifications of it which Courts have felt called upon to make, this central idea of artificial personage and separate legal entity has been the controlling and animating principle of the law of corporations from the beginning. The people have caught the idea in their capacity as jurors, and from the stump, and have wrested it, if not to their destruction, at least to the promotion of an antagonism on the part of persons engaged in corporate enterprises, quite as effective and more dangerous than their own.

Could New York startle the nation by revelations of the Broadway Surface Railway steal, if men did not feel greater security in carrying on their nefarious practices through a corporate organization, and beneath the cloak and shield of a corporate entity? Would the Chicago City Railway Company find it necessary to resort to jury-bribing in trials of civil actions for damages for personal injury, if corporations had at all times received fair treatment from the Courts? No amount of abuse justifies crime,—if crime in either of the above instances was committed,—but the prevailing prejudice against corporations may, in a large measure, account for it.

Jurists might claim exemption from responsibility for this condition if there were any necessity for the rules of law which gave rise to it, or rather, upon which it is based.

It may be doubted if, in any proper sense, that which is the product of *art* can be called a person. According to Webster, a person is "a corporeal manifestation of the soul"—"a self-conscious being"—"a moral agent"—"especially a living human being"—"a man, woman, or child"—"an individual of the human race." Given neither *body* nor *soul*, a corporation cannot be a corporeal manifestation of soul. Deprived of every attribute of personality it cannot be a person in that sense. Or, psychologically considered, "a person is an individual that, like man, possesses intelligent volition." It is impossible to attribute "intelligent volition" to anything outside of the animal kingdom. Certainly no mere mental creation, such as an "artificial person," can be considered as of itself having "intelligent volition." It is, indeed, impossible to conceive an "artificial person," independent of the persons or members who compose it. It is a

(1) 2 Bacon Ab'mt. 439.

(2) Dartmouth College v. Woodward, 4 Wheat. 636.

(3) People v. Assessors, etc., 1 Hill 616.

(4) Curran v. Sautel, 16 La. An. 27.

(5) 2 Kent's Com. 268.

(6) Dartmouth College v. Woodward, Supra.



misnomer to speak of a corporate *will* other than as referring to the joint or collective *will* of the persons composing the corporate body.

Technically, the appellation is derived from the civil law. To that jurisprudence we look for the origin of our law of corporations. By the civil law "whoever or whatever was capable of having or acquiring rights was a *persona*," (7) and a corporation was by that jurisprudence considered as capable of having and acquiring rights. In reality there was no ground for such assumption.

(To be concluded.)

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M.D.

Part XVII.

#### HEALTH AND DISEASE.

The first discoverers of the fossil remains that attest the former existence of gigantic reptiles and mammals must have been tempted to an inference rather at variance with the doctrine of evolution from lower to higher forms of life. The evidence of indisputable inferiority in the size and strength of living creatures as compared with their extinct congeners, encouraged those theories of biological retrogression expressed in the classic traditions of the Saturnian Age and the paradise legends of the Semitic nations.

The systematic study of comparative anatomy revealed, however, a steady progress in the direction of higher organization, in the sense of structural adaptation to more efficient and more versatile functions. In other words, the living organisms of the present age, though inferior in bulk and rude strength to the giants of the earlier geological periods, exceed them in the elaborate complexity and pliancy of their structure, and thus, after all, demonstrate a progressive adaptation to higher functions of life.

The progress of moral evolution presents a strikingly similar contrast. Our moral and mental life is more complex, more elaborate and diversified than that of the ancients, but those advantages are offset by a loss of vigor and moral stamina. In many respects the moral contrast of ancient and modern times corresponds, indeed, to the contrasting moral concomitants of rugged health and debility. Physical and moral changes of that sort go hand in hand, and there is no reasonable doubt that, as compared with the heroic age of the Mediterranean Republics, ours is an age of physical enervation. The comparatively recent revival of sanitary science has somewhat increased the average of human longevity that reached its lowest ebb during the reign of mediæval anti-naturalism; but

it would be in vain to deny that in the course of the last thirty centuries the average duration of human life has considerably decreased. The genealogy of Hebrew and Hindoo patriarchs may be founded on a lower unit in the computation of time; the "years" of Genesis may have been moons or seasons, and the records of Brahmin scripture may have been vitiated by the myth-making tendency of Oriental historians. But the statistic chronicles of Greece and Rome cannot thus be explained away. Biographers writing of contemporary statesmen and philosophers in an era of systematic chronology can hardly be supposed to have exaggerated their age by scores of years. In the first century of our chronological era (A. D. 74) the Emperor Vespasian ordered the publication of statistics comprising the following census-records of the eight administrative divisions of the Roman Empire: Fifty-four of the total population (inhabiting the most prosperous regions of Europe, western Asia, and northern Africa) had attained, but not passed, their hundredth year; one hundred and fourteen were between 100 and 110 years of age; two only were between 110 and 125; four between 125 and 130; four others between 130-135; three between 135-140. The latter age was undoubtedly exceeded by that of Thomas Parr, an English peasant of the eighteenth century who died at the age of 152, and whose three grand-sons outlived a century by several years, thus removing all physiological objections to the approximate correctness of the Roman census. That margin of doubt is, however, still further limited in the case of well-known statesmen, poets, and men of science. The poet Epimenides, according to Pliny, died at 154; Democritus, at 109; Gorgias of Lacontes, at 108; the philosopher Theophrastus, at 107. Three of the "seven wise men" of Greece, according to Lucian, lived more than a hundred years. The historian Hieronymus of Rhodes died at 104. The comic poet Cratinus at 100; Hippocrates, the founder of hygiene at 99; Galen at 98. The poet Isocrates and the Cretan philosopher Demonax died in their ninety-ninth year, not of old age, but of excitement the one, the other of hunger. The Stoic Cleanthes and the satirist Juvenal lived a few days more than a hundred years. Perennius Tutus died (A. D. 117) in his 107th year; Fabius Maximus in his 101st; Terentius Varro in his 98th.

Nor can we possibly doubt that our so-called prodigies of physical strength would have been children in the hands of the ancient athletes. Not to mention the portents recorded of Milo and the champions of the Olympic arena, the sober military statistics of Xenophon and Pliny oblige us to admit that the warriors of the old Mediterranean Republics were habitually subjected to hardships and fatigues that would kill ninety-nine of a hundred modern soldiers in a single week.

(7) *Proffitt on Corporations*-11.

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In view of such facts the contrast in the moral types of ancient and modern nations implies a suggestive physiological significance. Physical debility effeminates, and the moral characteristics of Pagan heroism differs from those of modern culture as the masculine differs from the feminine type of vices and virtues. Ferocious passions have yielded to pity, extravagance to moderation, pride to the worship, if not to the practice, of humility; but also patriotism to the culture of the domestic virtues, the love of blunt truth to hypocrisy, the cruelty of callousness to the cruelty of vindictive spite, moral courage to moral cowardice. The most characteristic difference in the moral concomitants of health and disease expresses at the same time the most significant contrast in the moral tendencies of ancient and modern religions: The worship of joy was superseded by a worship of sorrow.

The main tendency of the creed that developed its deepest roots in the soil of a decaying empire, is a distinctive symptom of disease. The joy of revelry jars upon the ear of the sick; decrepitude naturally turns its hopes from the tribulations of life to the peace of the grave. "Under the influence of sorrow and infirmity," says a reviewer of mediæval ethics, "men are apt to become instinctive pessimists. Nature practices her delusions for wise purposes of her own. She baits her matrimonial traps with visions of Elysium and reconciles her children to the gathering shadows of the long night by exaggerating the disappointments of the day and the recollection of its fatigues. And, even at the end of a pleasant evening, rest becomes sweet enough to be valued for its own sake. But this quietude of the sunset hour the apostle of renunciation attempts to enforce in the morning of life; his disciples are to seek refuge in sleep before their days' work is done; he gathers dry leaves to bury the budding flower. Like the genius of death, he depreciates life by dwelling upon the vanity of its hopes; and the secret of his success is to be found in the circumstance that in every human breast there is a germ of this feeling which may be stimulated into premature activity. It is a reversion of the vital instincts. Even in the prime of life, the systematic suppression of all our natural desires will lead to that weariness of earth which Nature had intended to deaden the sorrow of the parting hour, as we may force a plant to return as dust to dust by depriving it of its flowers and green leaves. Young pessimists resemble the fruits that rot before they ripen. Monastic tendencies imply an abnormal condition of the human mind.... Disease, crushing misfortune, mental derangement, whatever disqualifies a man for the healthy business of life, will qualify him for the reception of anti-natural dogmas. Marasmus and pessimism are as concomitant as optimism and health. Caged murderers generally become

devout: Nearly every scaffold orator edifies his audience by the enunciation of unworldly sentiments. Unmasked hypocrites console themselves with the hope of a better hereafter. When the gods of war rejected his appeal, Charles IV of Spain solaced his spirit by embroidering a petticoat for the Holy Virgin. Rancé, the founder of the new Trappists, became devout in consequence of a domestic tragedy; the quietism of Raimund Lullius dates from the infidelity of his bride; Hannah More was a martyr to chronic headaches and Calvin a dyspeptic. The devotees of pessimism were mostly persons who had reason to revenge themselves upon Nature....

—The Devil was sick, the Devil a monk would be.

or, to quote the famous sarcasm of Marquis Condorcet: "Impotence insists upon the sinfulness of earthly amours."

The disease-born doctrine of renunciation has, indeed, darkened the sunlight of earth as efficiently as disease itself; but the ethics of decrepitude assume their compensating form in the worship of pity. "He sneers at scars who never felt a wound;" and only the children of sorrow can fully sympathize with the affections of their brethren. "The bright gods of Olympus," says Heinrich Heine,—"gods whose eyes had shed no tears, were unable to realize the woes of poor martyred man, and man's burdened heart could hope no solace from his prayers. They were holiday-gods to whom their worshipers could dedicate only banquets and thanks. They were never truly loved. Truest love is the privilege of sorrow: Pity is its sacred seal; pity, perhaps, is love itself. Of all gods who were ever loved, Christ, therefore has been loved the most...."

And pity has remained the redeeming trait of fallen nations. The Sicilians, the starving Spaniards, the Poles in their deep sorrow and misery, are passionately charitable. Times of distress stimulate the devotion of self-sacrifice;—the age of Inquisitorial torture-hells coincided with the period of noblest charity, and the dogma whose fanatics Jordan Bruno justly stigmatized as the worst enemies of mankind, has also produced the most zealous philanthropists. Priests, with all their "sectarian animosities and horrible persecutions," as Lecky sums up the infamies of ecclesiastical history, with all their "blind hatred of progress, their ungenerous support of every galling disqualification and restraint, their intense class selfishness, their obstinately protracted defense of intellectual and political superstitions, their childish but whimsically ferocious quarrels about minute dogmatic distinctions, dresses and candlesticks," were nevertheless the deathbed-angels of a hundred sorrowful generations and foremost ministers of mercy in the crisis of every public calamity.

"A cripple makes the swiftest sick-nurse," is a well-



founded proverb of French military hospitals,—as well-founded as the proverbial cruelty of thoughtless boys who cannot realize the significance of the tortures they inflict on helpless birds and kittens. The "fellow-feeling of joy," evinced by those same boys in their keen sympathy with the happiness of their playmates, contrasts, however, not less strongly with the narrow envy fretting the souls of their pious elders, and forms the analogue of another characteristic distinction of ancient and modern ethics. The philanthropists of antiquity delighted in sharing and increasing the joys of the happy. The philanthropists of the cross confine themselves to sharing and decreasing the sorrows of the afflicted. It would be no exaggeration to say that the Emperor Trajan alone expended more treasures on the maintenance of free public recreations than all the sovereign rulers of Christian Europe have expended in the course of the last hundred years. Every larger city of southern Europe and western Asia had a free arena and a free public bath; jugglers, musicians, athletes, and zoological curiosities were imported from foreign lands, regardless of expense; every new month was ushered in by a day of merry-making in honor of a tutelary god; the patricians, the plebeians, and even the slaves of ancient Rome had their yearly festivals, besides the great national and municipal anniversaries that united the pleasure-seekers of all classes. The Colosseum of Vespasian seated eighty thousand spectators, but was rivalled by the amphitheatres of Syracuse, Narbonne, Antioch, Berytus, and Thessalonica. Christian potentates celebrate their accession by remitting or mitigating the sentence of a few political prisoners. Roman victors signalized their triumphs by treating their countrymen to a series of free festivals. When the philosopher Anaxagoras lay on his deathbed he did not try to perpetuate his memory by endowing a mythological seminary or a hospital for orthodox consumptives, but requested the magistrate of his native town to celebrate the anniversary of his death by treating their schoolboys to a yearly holiday.

Yet it must be admitted that even in the centers of pagan civilization that "fellow-feeling of joy" was offset by an extreme, often, indeed, almost incredible callousness to the appeals of mercy. Seneca, the most humane of pagan philosophers, distinctly insists (*De Clementia*, II, 6, 7) that the leniency of a judge should stop short of duty, and that the commiseration of suffering is suited only for weak women and men of unsound mind! "It is only diseased eyes," he says, "that weep in seeing the fear of others, a foible akin to the nervous weakness that makes some people laugh when others are laughing aloud." Such teachings bore their print in the law that doomed to a cruel death all the slaves of a murdered master whose

assassin could not be discovered—a law which in the time of Tacitus was actually enforced upon the four hundred slaves of a Roman Knight, found dead under circumstances which did not even exclude the possibility of suicide. As late as the reign of Hadrian husbands killed their wives and fathers their sons with general impunity, and only in a case of exceptional atrocity a citizen of Rome was banished for murdering his own child. The elder Cato seems to have treated his slaves as the modern Turks their stage-coach horses, that are driven to a speedy death by systematic over-work and underfeeding to save the expense of maintaining them in old age. The insurrection of Spartacus was quelled by crucifying several thousand captives. Slaves performing the duty of porters, were often chained to a gate, like dogs, and prisoners of war, by thousand and tens of thousands, were sold to the man-butchers of the circus arena, where in the rehearsals of a holiday-show scores of the helpless wretches were often slaughtered for the mere purpose of instructing novices in the details of scientific homicide.

It is a suggestive fact that cruelties of that sort proved for centuries compatible with an advanced state of intellectual and artistic culture, and in some of their most barbarous forms were sanctioned, not only by despots, crazed with wine and lust, but by enlightened statesmen, and with rare exceptions, even by the exemplars of those schools of philosophy whose moral precepts excelled the teachings of the traditional religion.

That fact would, however, appear less strange, if we were less apt to confound the primary and secondary instincts of the human mind. The moral results of education, in the course of time, tend to become hereditary, and at last require the force of a "second nature," swaying the mind with all the spontaneous impulse of a natural propensity. The love of "romantic scenery," for instance,—of lofty mountains, steep rocks, and yawning precipices, has become an intuitive passion of the educated classes, but frequently fails to strike a responsive chord in the soul of rustics and seems to have been almost unknown to the ancients who shuddered at the sight of frozen Caucasus and viewed with indifference, if not with dismay, the grandest prospects of the western Alps, whose snow-clad ramparts they mentioned only as so many obstacles to the progress of their military expeditions. Again, the doctrine of eternal punishment, thanks to the ceaseless efforts of the mediæval priesthood, has become almost indelibly impressed upon the minds of millions who anticipate the hour of death with a dread which the mere prospective end of conscious existence would fail to inspire. But that dogma which a historian of moral



evolution characterizes as at once "so atrocious, and so extravagantly absurd that its adoption might well lead us to doubt the universality of moral perceptions," found only a faint analogue in the mythology of Hesiod (the doom of Tantalus and the Danaids, for instance) and is hardly ever mentioned in the pagan literature of the next fourteen centuries.

Altruism, in its more sensitive forms, was equally unknown to nations of undoubted mental and physical health, though it is now so fast acquiring the force of an hereditary instinct that many of our contemporaries find it difficult to realize the attraction of the gladiatorial games (except upon the theory of a moral disorder), and are apt to forget the complacency of the Spanish cavaliers, who only three hundred years ago engaged reserved seats for their boon-companions and gaily-dressed ladies, to witness the agony of a roasted heretic.

#### FORM AND FORMAL THOUGHT.

##### II.

##### THE ORIGIN OF THE 'A PRIORI.'

Kant answers the question 'How are synthetic judgments a priori possible?' by showing that such synthetic judgments undoubtedly exist.

A synthetic judgment is different from an analytic judgment. An analytic judgment merely analyses knowledge and contains nothing but an explanation or elucidation of what, in an involved form, we have known before, but a synthetic judgment really amplifies our knowledge; it adds to the stock of our knowledge something new, which we have not known before. In proving that the exterior angle of a triangle is equal to the sum of the two opposite interior angles of the same, we amplify our knowledge of the triangle by mere ratiocination, a priori. Kant uses even a simpler instance. The judgment  $7 + 5 = 12$  is not analytic but synthetic. The concept twelve is neither contained in seven nor in five, but is something entirely new.

Kant leaves the subject here and is satisfied with the fact that synthetic judgments a priori are possible. He might have ventured a step further by proposing another question: 'What is the origin of the a priori?' Only by answering this question could he have shown, *how* synthetic judgments a priori are possible. This he did not do, and the omission has produced great confusion among German, French, and English thinkers.

The word 'a priori' is undoubtedly an old-fashioned and awkward expression, which has not yet lost the savor of 'innate ideas.' It was readily accepted in England by philosophers of a theological bias who were little aware of the dangerous properties concealed in this Kantian idea. It sounds so scholarly Latin, almost ecclesiastical; for it is an expression handed

down from mediæval times. But when they drew this clumsy wooden horse within the walls of their dogmatic stronghold, they unwittingly admitted an army of bellicose warriors—Kant's critical thoughts—who are sure to conquer and destroy the citadel of dualistic orthodoxy.

"The old fashioned a priori in science, in morals, and religion," a reviewer in *Science*\* somewhere remarks "used to be represented as an arrogant and intolerant thing, mysterious in its manner of speech, violent and dogmatic in the defense of its own claims. The English Empiricists used to hate this aristocratic a priori and they shrewdly suspected it to be a humbug. What they gave us in its place, however, was a vague and unphilosophic doctrine of science that you could only seem to understand so long as you did not examine into its meaning." J. S. Mill's philosophy moved in a circle. "He had founded all inductive interpretation of nature on the causal principle and the causal principle again on an inductive interpretation of nature."

Kant, as we have stated, calls the a priori truths 'formal knowledge,' and this indicates that the general postulates of the transcendental sciences, the axiomatic conceptions from which they start, are abstracted from reality by thinking away, as it were, their material existence, which is represented in our sensory impressions. Kant suggests this conception of the a priori, but he nowhere pronounces it. On the contrary, he makes statements which may be taken to exclude this interpretation of his conception.

According to our view, form is a property of reality as well as of our cognition. Formless matter does not exist. Form and matter, as they exist in reality, are inseparable. What is called formless matter is either uniform or lacking that kind of form which, in our opinion or according to our wishes, it should have. Knowledge also in its primitive shape, when it is, so to say, natural and crude, is an intimate combination of sense-perceptions and formal cognition. The sense-perceptions are the real substance of knowledge, while formal cognition is the principle which arranges and systematizes sense-experience.

As soon as a living being develops the ability to think *in abstracto*, a state which is attained by means of language, he can think of different qualities independent of things. He can think of whiteness, of greatness, of smallness, of courage, and of cowardice. And soon after that, he will be also able to think one, two, three, four, five units *in abstracto* without the assistance of his fingers; he will count. Counting is a most important step in the development of humanity, for it is the first purely formal thought. It abstracts from the objects counted and refers exclusively to the

\* *Science*. Vol. V, p. 202.



unit numbers which then may be employed for any kind of things.

Physiologically considered the growth of abstract and formal ideas must have developed in the following way:

Irritations in the amoeba can only produce vague feelings. Light and darkness, heat and cold, moisture and aridity, abundance and scarcity of food, exercise a certain influence upon the animalcule; they act upon it in a certain way and produce more or less favorable or unfavorable effects in the living substance which may ultimately result in reactions of some kind. In higher animals irritations are reacted upon differently in different organs. Sensitiveness has been differentiated, and a ray of light is perceived on the nerves of the skin as warmth and in those of the eye as light.

The same process of differentiation and specialization takes place in the brain. If a horse is seen, its image appears on the retina of the eye, whence the irritation is transmitted through the optic nerve to the interior parts of the brain. There it is perceived as a horse. According to Hering\* and other physiologists, there is no doubt but that every new perception of a horse is registered on the same spot in the brain as previously. Every single brain-cell has a memory of its own, which makes it more fit to be irritated by that perception to which it has adapted itself. Thus, the conception of a horse is the sum total of all percepts of a horse. It is, as Mr. Hegeler† most appropriately expresses it, like a composite photograph. The common features of a certain group of same things are preserved, while the individual traits become blurred and are lost sight of.

Thus the many varying images of the eye, and all sensory impressions, as well as motory exertions, are registered somewhere in the brain, each kind in its place. The special memory of the different fibres and cells naturally arranges all percepts and concepts in a proper order. Moreover, a repeated simultaneousness of different sensations which are produced by same causes in different sense-organs, produces associations between certain percepts. We think of the rose and at the same time of its smell and its color. We see a bird and think of his song, and the dog who sees the whip feels at once in his recollection the pain caused by his lash.

\*See Ewald Hering; Memory as a General Function of Organized Matter. THE OPEN COURT, p. 14.

† Mr. E. C. Hegeler, in his essay, "The Soul," (see THE OPEN COURT, p. 393) says:

"If an abstraction is made, many things having something in common are put together, and what they have in common is specified in words. It is then forgotten that what they do not have in common disappears in the generalization. The same takes place in Galton's composite photographs of the members of a family. Only that remains of the several faces what they have in common. This implies that the composite photograph is entirely contained in each of the single photographs of each member, each is the complete composite with additions. So in reality the composite photograph is an abstraction—a part—of each of the single photographs."

Horses have been perceived which are different in size, and color, and temper, etc. These differences are occasionally of importance. A horse may attract attention because it is as white as snow. The horse is perceived and also its whiteness. Thus a new concept is created, the concept of a quality which does not correspond to, but has been abstracted from, concrete objects. White roses, white snow, white stones (as lime or chalk), and white horses have been perceived, and the percept of 'whiteness' is produced, to which again a special province of the brain must be ascribed, which of course must be connected by nerve fibres with all white things, more so with things that are always white than with those that appear so only occasionally. The psychical connection of such concepts is called association.

Suppose we are in a library where the books are well arranged by a number of librarians who have different but each one his own special interests. Many books are being constantly delivered. There are books about horses, and dogs, and flowers, and stones, etc., etc. Every librarian takes the books of that subject with whose study he is specially engaged and places it in his alcove. The library would be in the best order, and yet so long as the different alcoves were not named, most of its treasures would be inaccessible for many most important purposes. Such is the arrangement in animal brains. A dog knows what a cat is. Every new perception of a cat awakens in his mind with more or less vividness all the many previous percepts of a cat with their different associations, mostly memories of pursuit, perhaps also of resistance and combat. But all these memories are single percepts. They have not yet coalesced into a unitary and clear conception of catdom. If the sum total of the cat-percepts in his memory is to be called a conception, it is certainly a very imperfect kind of conception. A conception becomes distinct only by being named. This is the truth which has been so splendidly elucidated by our best philological authorities, namely, that thought (the abstract thought of reasonable beings) is only possible by the help of language. Man thinks because he speaks. The name of a thing is, as it were, a string tied around all the many percepts of that thing, thus comprehending them all in one concept. Concept is derived from *con* and *capio* and means, according to its etymology, a taking or grasping together, a gathering into and holding in one.

The act of naming is therefore an enormous economy in mental activity; it is the mechanical means by which abstract ideas or generalizations are formed; and the faculty of thinking *in abstracto* is called reason. Reason, therefore, in its elementary origin, is abstracting and combining. Abstracting is



a kind of separation. We separate the quality of white from white objects and combine all the different white-sensations into one concept by the name of 'whiteness.' Both processes, that of separation and of combination, are essential features of reason; but they are the essential features, and all functions of reason can be reduced to these two processes.\*

Our brain is like a workshop in full and unceasing activity. In its operation, we must distinguish three things:

1. The activity which is called life; it is a special kind of energy. Its presence makes itself felt as motion, which is a change of place and could be, if all details were known, mechanically expressed.

2. The material of which the whole workshop of the brain consists, and which is used to keep it in working order; viz., the matter which is constantly combining and decomposing in the protoplasm of the brain-substance.

3. The form in which life operates in the nervous substance. Every brain-cell has a special form, the groups of cells are arranged in special forms and the whole system of the different cerebral organs is built up in a special form.

We distinguish these three things, but in reality they are inseparably united. If our percepts and concepts are to be physically considered, they should not be represented as the activity only of the brain, nor as brain-substance, nor as their mere form. They are activity, and matter, and form united; being a special form of the activity in brain-substance. It goes without saying that the form of a special energy depends upon the form of that substance in which the process takes place. The form of a motion and the form of the substance in which the motion takes place, are not only interdependent, they are identical.

A certain percept, being a special form of motion in living brain substance, leaves in those cells in which it takes place, such vestiges as to produce a disposition adapted not only to receive the same or similar percepts, but even to reproduce that percept spontaneously, if the cells, nourished by the blood-circulation, are stimulated into activity through some inner process by association. This disposition (called by Hering *Stimmung*, which is produced by the special mem-

ory of organized matter), becomes stronger by repetition and thus imparts more and more stability to that special form.

Physiologically considered, percepts and concepts are very complicated structures which in their associations may resemble a kind of three-dimensional network, showing interlacings of innumerable star-shaped knots, the threads of which interradiate and combine the various sensory percepts belonging to the same idea. But for the sake of simplicity let us suppose that perceptions and conceptions grew in a brain like cells and groups of cells simply; they would naturally and mechanically arrange themselves in systematic order. One of the first steps in the evolution of living matter is that of giving stability to its outer form by enveloping itself in a membrane. Form, as we understand the term, is not only the outside shape, but also the inner disposition and arrangement of atoms. However, for the sake of simplicity again, and as a matter of crude illustration, let us for a moment use the membranes of cells as an example of their forms. The membranes of cells are also organic substance and their material particles are constantly changing. Nevertheless, they possess a relative stability which represents the shape of the cells, i. e., their outer form. If we would take out of such a brain the living substance without destroying the membranes in which the cells have enveloped themselves, it would afford an aspect of divisions and subdivisions not unlike that of the departments, shelves, and pigeon holes of a library from which the books are removed, and we would have an anatomical representation of a system of formal thought.

It is understood that this explanation is a simile only to show that form grows *pari passu* with its substance, and mere form, if abstracted from its substance, is, for purposes of thought, by no means valueless; it is of greatest importance for a proper orientation among the enormous mass of sense-perceptions that crowd upon the mind.

An animal and a man may have the very same sensory impressions; their brain substance consists of the same combinations of nervous matter; sensations (the basis of all mental activity) are produced by the same kind of organs and in the same way. Yet there is a difference of form between the animal and the human brain in so far as the many different impressions of same percepts have not yet attained in the animal brain that stability and unity which they possess in the human brain. In the human brain the subdivisions are more marked, the furrows are deeper as well as more numerous; and from recent investigations we know that every class of same perceptions has acquired an additional and closely associated brain

\*F. Max Müller defines Reason as "addition and subtraction." We have repeatedly given our full assent to the great philologist's views with the remark, that we should substitute for "addition and subtraction" the terms used above, i. e., "combination and separation." The terms "addition and subtraction" are confined to arithmetic; and to our mind they are different from "combination and separation" in so far as "subtraction" is used of units that are taken away from other equal units, while "separation" takes a part from something that appeared as a unit (an integral whole) before the separation. Similarly an addition sums up units of the same kind (or at least those which for the purpose of addition are considered as being of the same kind) into a larger number, while a combination unites parts into one consolidated whole. We believe that there is no substantial difference between Prof. Max Müller's view and our own.



structure which embodies its name.\* The whole group of certain percepts together with their name represents what in logical and psychological language is called a concept.

Let us now suppose that the chief librarian of the library of our brains for the sake of arranging a catalogue takes an inventory of all the books arranged in the different alcoves. He would find the same principle of arrangement applied everywhere. The different alcoves would have separate departments and these again would be found to possess subdivisions. This kind of arrangement, which, as we stated above, grew naturally, became first apparent when the process of naming took place. Many different names were conceived in our consciousness to be special kinds of one general kind so that they together formed one system of ideas. Logicians call it *genera and species*.

The librarian (we now suppose) arranges an office (perhaps for the purpose of reference) in which a general plan of the whole library can be found. This reference room contains no books. The visitor finds there no substantial information; the information to be gained there is purely formal and serves the purpose to find one's way easier in the many different departments of the alcoves. This reference room in our brain is called logical ability, or mathematical reasoning, or calculation, and we need not say that its establishment marks another important step in the development of reason; it is formal thought. It is the beginning of scientific thought by the help of which we gain information about the methodical arrangement of our conceptions. Logic does not create order and system in our brain, but it makes us conscious of the order that naturally grew in our mind.

The difference between the library and our mind is, that in a library the shelves have been put up before the books were stored, but in our brains the different notions form (or rather grow) their own categories. The notions of our minds are like living books that build their own shelves and pigeon-holes, similar to the way in which cellulizing protoplasm covers itself spontaneously with a membrane. If we abstract from the protoplasm, which constitutes the contents of cells, we retain the empty membranes, and if we abstract from the sensory material of percepts and concepts, we retain their mere forms, which, reduced to rule, are called formal thought, *i. e.*, arithmetic, mathematics, mechanics, and logic.

Knowledge of objects has been gained by sensory impressions, but knowledge of logic can be acquired

only by a process of self-observation. It is a kind of internal experience which is quite different from that of external experience; the latter takes place by, and can never dispense with, the instrumentality of the senses. If the rules of pure logic are to be established, we must carefully exclude from this process of inner self-contemplation the interference of the senses, for it is only the form of things, and thoughts, and motions, with which in purely formal thought we are concerned. The importance of these forms becomes at once apparent if we bear in mind that as they are in one case they must be in all others also. The rules by which we generalize our knowledge of formal conditions (of mathematics, arithmetic, logic and mechanics) possess universality and necessity.

The process of scientific enquiry will be seen to be everywhere the same. Science classifies sensory experience according to the categories of formal thought. In so far as we succeed in reducing the data of a certain subject to mechanical, mathematical, arithmetical, or logical principles, we solve its problems and recognize why the different phenomena which are subject to our special enquiry *must* be such as they are. Science traces necessity everywhere; and science can do so only by the help of the formal truths, which, holding good for all imaginable cases, show single instances under the aspect of universal and irrefragable rules.

P. C.

#### NATURAL AND ARTIFICIAL PERSONS.

The most recent investigations of physiological psychology have not only revolutionized our views of the human and animal soul, but have also exercised a great influence upon the other sciences that are more or less dependent upon psychology,—first among them, history and jurisprudence. A new science is about to be born, which, by German savants has occasionally been called *Volkspsychologie*. It will investigate the laws of national soul-life from the standpoint of positivism. The data of the psychical life of a number of individuals are their actions, their customs, their habits, and their laws, in their totality as well as severally. A number of individuals will naturally form a unity, as do tribes and nomadic families. In their further development they will organize with purposive foresight into States and Empires. They thus form nation-individuals of a special character and with peculiar features.

Nations, Cities, States, and Empires are, so to speak, *natural* individualities which coalesce from the common interests of individuals of the same race, or the same language, or the same residence, or the same religion, perhaps of all four. But there are also individualities which are created by a union of several people who have the same commercial, professional, or industrial interests. They originate in the same way and according to the same natural laws as States and other natural individualities of a corporate character do; but as they cannot spring into existence without the conscious consent of their members, nor without adopting, in some way, a system of by-laws or an agreement of some kind, they have, so to say, an *artificial* existence. Since such companies, or guilds, or associations, are recognized as corporations by the State, they are called artificial persons.

An individual is such a unity as, if separated into its parts, ceases to be what it has been before the separation. An individual

\* Compare the map and explanations of the human brain in *Der Mensch*, by Dr. Johannes Ranke, Vol. I, p. 530 et seq. The chapter, " *Lokalisation in der Grauen Gehirnrinde*," explains Broca's, Hitzig's, and Fritsch's investigations. It takes into consideration the arguments proposed by adversaries of the localization theory (Goltz, etc.), and adopts Exner's view which, it appears, reconciles seemingly irreconcilable principles.



in order to remain what it is, is, as the name suggests, indivisible. An octahedral, or any other, crystal is an individual. If broken, it ceases to be what it has been. An animal, say an ox, is an individual; if cut to pieces, it is no longer an ox, but pieces of beef. An artificial person so called is an individual; if its members, from insolvency or from a disagreement of any form, dissolve, it ceases to exist; its transactions stop, and its business is no longer carried on. A 'person' is an individual that, like man, possesses intelligent, volition.

Living individuals do not remain one and the same; they grow or decline and are more or less in a state of constant change. A man's body is in a constant flux: new matter is received, old matter is given out; new ideas are accepted, old ones are discarded, or obliterated. Similarly a corporation may change its members and yet remain the same corporation, carrying on the same business and not losing its historical connection nor suffering an interruption of its transactions during the process.

Some animals of a lower order have a tenacious life. They may be cut in two, and both parts may continue to live and grow to be individuals like their parents. In a similar way corporations may split, and by establish themselves as two competitive companies of the same kind, as the parent corporation had been.

The juridical views that have been entertained about artificial persons have been very vague—perhaps just as vague as those about human persons. Juridical authorities have used similar words even for their artificial persons as theologians have when speaking of the human soul. It appeared as an immortal, an intangible, and an invisible entity of a very mysterious character.

The object of science is to remove mysteries. Positive psychology, history, and jurisprudence have rid themselves of the mysterious, and the results of all these sciences, pointing out the same facts of psychic life in different provinces, will help to explain each other. They show how by natural or artificial combinations and organizations more complicated, more powerful, or higher individuals, can be produced. The individuals produced are neither invisible psychic entities who exist of themselves like ghosts and spirits, nor are they a mere fiction of idle brains; but they are the product of the joint action of their several members or constituent parts; they are new formations of a real, and sometimes most important, existence. Their characters are determined not only by their constituent elements but also by the purposes for which and the forms in which they combine.

P. C.

## CORRESPONDENCE.

PROF. W. D. GUNNING AND "THE OPEN COURT."  
To the Editor of "The Religio-Philosophical Journal," Chicago.

I have read in your journal, of November 10th, a communication from Mr. Underwood touching a line from me to THE OPEN COURT, and a line of earlier date to himself. His points are correct so far as he had information. It is certain that, had he remained editor of THE OPEN COURT, the Montgomery-Cope paper would have been written, as at that time my husband was writing quite regularly for it. It had been fully matured, but before it was committed to manuscript the editorial rupture had occurred, followed by Mr. Underwood's circular to his friends. This calamity disturbed Prof. Gunning, and he dropped the work for a time. He had not been so situated as to have any personal knowledge of Mr. Hegeler or of Dr. Carus, the incoming editor, and feared as others did that it was all up with THE OPEN COURT. Conciliation as well as justice was in the temper of his mind. He was loyal to his friends, foremost among whom he reckoned Mr. and Mrs. Underwood. But he did not fail to do justice to the claims of the founder of THE OPEN COURT, in whose cause he had enlisted by becoming a paid contributor to it. To the existence of that jour-

nal, his friends owe the publication of his ripest thought, save that on the Montgomery-Cope discussion. The thought was too broad and too earnest to be desired in any other journal now issued. He sympathized with Mr. Underwood in his trouble, but he also recognized the free hand and mind that made the publication of THE OPEN COURT possible. It is therefore also true, that but for the sudden decline the article would have been completed for THE OPEN COURT, in whose columns the discussion appeared. It was spoken of by him on the morning of the day of his departure and there was deep regret that it was to be left incomplete.

The letter of March 14th did not touch on this phase for obvious reasons. Mr. Underwood was not then, and is not now ready to hear anything adverse to his attitude toward THE OPEN COURT, which is marked in his communication to your journal and in other ways. A ripe experience will not bear him out in it. It has marred the happiness of his friends—is destructive in spirit, and cures nothing. \* \* \* \* \*

Yours Very Sincerely,

MARY GUNNING.

GREELEY, COL., Nov. 14, 1888.

[Mrs. Mary Gunning, in a letter to the proprietor and editor of THE OPEN COURT, published in No. 61, wrote as follows: "There was a paper which, had Professor Gunning continued with us, he would have given you in due time. It was the treatment, or rather reconciliation, of the differences in the arguments of Dr. Montgomery and Prof. Cope as published in THE OPEN COURT." With reference to this statement the late editor of THE OPEN COURT has published in the *Religio-Philosophical Journal*, a spiritualistic paper of Chicago, a passage from a letter of Mrs. Gunning's to himself to the effect that if he had remained editor the article would have been completed and published. As the two statements appeared to him contradictory, Mr. Underwood considered "a correction" necessary. Mrs. Gunning's letter to the editor of the *Religio-Philosophical Journal*, published above, is a reply to that "correction." Mrs. Gunning had sent her letter to the journal mentioned, but as it has not appeared within reasonable time, it is now given a place in our columns.

The remainder of Mrs. Gunning's letter, having no reference to THE OPEN COURT, is, with her permission, omitted.—Ed.]

### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXVII—Continued.

The Prince walked slowly into the room. He bowed silently to Ilse, and gave his hand to the Professor. "My father has commissioned me to express to you his pleasure that you have fulfilled his wishes;" and, turning to Ilse, he continued: "I trust that you will find the dwelling comfortable enough not to regret having left your residence at home."

Ilse looked with great pleasure at her Prince. He had, it appeared to her, grown a little. His demeanor was still rather depressed; but he had color in his cheeks, and it was clear that things were not amiss with him. The little moustache was stronger and became him well.

She replied, "I scarcely venture to turn round. It is like a fairy castle. One expects every moment that a spirit will spring from the wall and inquire whether one wishes to go through the air, or that four swans

\* Translation copyrighted.



will stop at the window with a golden carriage. No chair is necessary to ascend to it, for the windows come down to the ground. The Park Street sends its greeting, and I give your Highness heartfelt thanks for the present which the Chamberlain sent me for the last Christmas-tree."

The Professor approached the Prince, mentioned to him the names of some of his colleagues, who had sent to him their kindest remembrances, and then begged him to express to his royal father his thanks for this hospitable reception.

Everything seemed to curl in ornamental scrolls. The lamps shone from the silver chandeliers, the hyacinths sent out sweet fragrance from every vase, the closed curtains gave the room a comfortable appearance, and on the frescoed ceiling a flying Cupid was represented holding a bunch of red poppies over the heads of the guests.

"To-day we will leave you to rest, as you must be tired," said the Prince, concluding the visit; and the Chamberlain promised to inform the Professor at an early hour the next morning when the Sovereign would receive him. Scarcely had the gentleman gone when a servant announced that dinner was served in the next room.

"Why, it is evening," said Ilse, shyly.

"Never mind," replied the Professor, "you have taken the first step. Show good courage." He gallantly offered her his arm. The man in smart livery conducted them into the next room, and drew back the chairs of the richly-adorned table. There was no end of courses. In spite of Ilse's protest a superabundant dinner made its appearance, and she said, at last, "I must resign myself to everything. There is no use in struggling against these spirits. Whoever lives in a Prince's household must be bold enough to go through all."

When the dinner at last was carried away, and Ilse had been freed from her anxieties about Gabriel, she busily began arranging her things. While she was unpacking she said to her husband, "This is a very charming welcome, Felix, and I now have real confidence that all will go well."

"Have you ever doubted it?" asked the Professor.

Ilse answered, "Up to this hour I have had a secret anxiety, I know not why, but it has now vanished; for the people here all seem so friendly and kind-hearted."

As the Prince passed through the gardens back to the castle the two cavaliers behind him conversed together.

"A charming woman," said the Marshal—"a beauty of the first order. There is good blood there."

"She is in every respect a distinguished lady," replied the Chamberlain, aloud.

"You have already told me that once," replied the Marshal. "I congratulate you on this acquaintance from the University."

"How do you like the Professor?" asked the Chamberlain, turning the conversation.

"He appears to be a clever man," replied the Marshal, with indifference. "It is long since the pavilion has had such a beauty in it."

The Prince turned round, and he saw by the light of the large chandelier that the gentlemen exchanged looks with one another.

The Prince's carriage drove up. He entered it without saying a word to his companions, and drove to the opera. There he entered the ante-room of the royal box.

"How do the strangers like their abode at the pavilion?" asked the Sovereign, kindly.

"They are content with everything," replied his son; "but the rooms are damp, and would not be healthy for a prolonged stay."

"They were never considered so, as far as I recollect," replied the father, coldly, "and I hope you will be convinced of it." Then, turning to the Chamberlain, he said, "To-morrow, after breakfast, I wish to speak to Mr. Werner."

The Hereditary Prince went into the box to his sister, and seated himself silently at her side.

"Where are the places for the strangers?" asked the Princess.

"I do not know," replied her brother.

The Princess looked behind her inquiringly.

"The strangers' box is opposite," explained the Chamberlain; "but they have enough to do to-day settling themselves."

"What is the matter with you, Benno?" asked the sister, after the first act. "You cough."

"I have caught a little cold. It will pass."

After the theatre the Prince retired to his bed room, and complained to Krüger of a headache and sore throat. When he was alone, he opened the window and looked across the pleasure-ground to the pavilion, the lights of which glimmered like stars in the night. He listened. Perhaps he might hear some sound from there. He found it warm, for he took off his necktie, and long stood motionless at the window, till the cool night air came into his room and the last light was extinguished. Then he closed his window gently and went to bed.

This was not prudent, for the Prince, whose health was easily affected, awoke the following morning with a severe cold. The doctor was hastily called, and the Prince was obliged to keep his bed.

When the indisposition of the Hereditary Prince was announced to his father, it put him in a bad humor. "Just now!" he exclaimed. "He has every mis-



fortune unhealthy people are heir to." When, afterwards, the Professor was announced, the way in which he received the announcement was so cold and constrained that the Chamberlain felt very anxious about the reception of the Professor. The long habit, however, of receiving graciously, and the dignified bearing of the Professor, had a softening influence. After a few introductory words, the Sovereign began a conversation about Italy; and it appeared that the Professor was in correspondence with a distinguished literary Roman, who was one of the Sovereign's most intimate acquaintances when he was last in Italy. This gradually placed the Professor in quite a different light to the Sovereign. He had sent for him as a mere useful tool, but he now found he was a man who had claims to personal consideration, because he was known to others whose position was respected by the Sovereign. The Sovereign then asked how the matter of the lost manuscript stood, and smiled at the eager zeal of the Professor, when he told him of the new clue which he had found in the records.

"It would be well for you to prepare a memorial of the whole state of the affair, which will assist my memory, and add to it what help you wish from me or my officials."

The Professor was very grateful.

"I will not deny myself the pleasure of taking you to the museum," continued the Sovereign. "I shall thus see what a learned man, who is a thorough connoisseur, thinks of the quiet amusement of an amateur collector."

The doors flew open, the learned man entered the spacious rooms with the Sovereign. "We will first go rapidly through the rooms that you may obtain a general view of their contents and arrangements," said the Sovereign. While the Professor looked at the abundance of beautiful and instructive remains of antiquity, many of which were quite new to him, the Sovereign gave some account of them; but soon left it to the learned man to search out for himself objects of interest, and it was now his turn to give explanations. Here there was an inscription, which no one probably had copied; there a specimen of pottery, with very interesting figures on it; then a statuette, a remarkable variation of a celebrated antique piece of sculpture; here the unknown coin of a famous Roman family, with their coat of arms; and there a long row of amulets, with hieroglyphics.

It was a great pleasure to the Sovereign to find out the importance of apparently insignificant objects, and every moment to receive new information concerning their value and names, but the Professor had the tact to avoid long explanations. He looked with quite a youthful interest on the collection. It happened just at a time when he was not occupied with

great works, he brought with him a lively susceptibility for impressions, and at every step he felt how charming were the new views which he obtained; for there was much here that invited a closer examination. He inspired the Sovereign with something of the enjoyment he felt himself. There was no end of his questions, and the answers of the Professor. The Sovereign was delighted to tell how he had obtained many of the objects, and the Professor, by relating similar stories of discoveries, led him on to give further accounts. Thus some hours passed without the Sovereign experiencing any weariness, and he was much astonished when he was told that it was dinner-time. "Is that possible?" he exclaimed. "You understand the most difficult of all arts, that of making the time pass quickly. I expect you at dinner; tomorrow you shall see the collection again, undisturbed by my remarks; then you must favor me with a written report of what is desirable with respect to the arrangement, so as to make the valuable objects serviceable to science."

At dinner—there was no one present but some gentlemen whom the Professor, by the advice of the Chamberlain, had visited in the morning—the conversation was continued. The Sovereign related much about Italy, and contrived in a cursory way to draw attention to the personal relations of the Professor with his own acquaintances, in order that his Court might know something about the man with whom he was so much pleased. The conversation was easy and pleasant, and before the Sovereign left the company, he turned again to the Professor, and said, "I desire much that you should feel at home with us, and I hope to pass more than one day as agreeably as I have done this."

To the Professor also it had been a refreshing day, and in going away, he said, in great spirits, to the High Steward: "His Sovereign Highness understands very well how to say kind things."

The High Steward bowed his white head civilly, and replied, "That is the vocation of princes."

"Certainly," continued the Professor; "but so warm an interest in the details of a remote province of scientific inquiry is more than I had anticipated."

The High Steward made a courteous movement, which was to signify that he could not contradict the assertion; he enveloped himself in an old-fashioned little mantle, bowed silently to the gentlemen who were similarly occupied, and entered his carriage.

(To be continued.)

The whole earth is the sepulchre of great men; not only are they commemorated by columns and inscriptions in their own country, but in foreign lands there dwells also an unwritten memorial to them, graven not on stone but in the hearts of men.

—Pericles.



## Recent Contributions to 'The Open Court.'

## REMINISCENCES OF MR. ALCOTT'S CONVERSATIONS.

MRS. EDNAH D. CHENEY. In Nos. 49 and 50.

In Nos. 49 and 50 The Open Court publishes a paper upon Mr. Alcott's conversations, read by Mrs. Ednah D. Cheney before the Memorial Meeting of the Concord School of Philosophy. Mrs. Cheney's recollections of Mr. Alcott lead us back as far as the year 1850. The reminiscences cover almost a half a century of Mr. Alcott's intellectual life. Abstracts are given of his conversations, incidents described in which noted contemporaries figured, and anecdotes told illustrative of Mr. Alcott's life and thought.

Wheelbarrow, in No. 52, contributes an additional reminiscence of this "amiable philosopher and venerable man."

## THE PROBLEM OF CAUSALITY.

In No. 55 is an editorial discussion of The Problem of Causality. The surpassing importance of this subject renders a clear conception of it absolutely indispensable to correct observation and sound reasoning. Despite this the problem has been unbecomingly neglected, and this neglect has given rise to innumerable errors and to an astounding lack of lucidity in scientific discussion. The problem is treated with clearness and precision; simplicity of presentation being especially aimed at.

The comments and discussions elicited by the article on "Causality" will be found to be especially instructive and elucidative. In Nos. 58, 59, and 60, Mr. William M. Salter advances a series of critical remarks, which are replied to in the same numbers by the articles, "Causes and Natural Laws" (No. 50), "Is There Anything Unknowable in Causation" (No. 59), "Is Nature Alive," and "The Stone's Fall" (No. 60). In No. 58, Mr. M. A. Griffen writes a letter upon the same subject; in No. 60, Dr. Edward Brooks, of Philadelphia, comments upon the standpoint taken: all of which are accompanied by editorial comments.

## GHOST STORIES.

By L. J. VANCE. In Nos. 59, 60 and 61.

The object of these studies in Comparative Folklore is not to account for every detail of every wild and senseless ghost story. Their purpose is to classify and compare the ghost lore of civilized and uncivilized peoples, and to show that the legends of the former are evolved from the savage fancies of the latter. The belief in the power and permanence of the souls of the dead is characteristic of savage nations. These beliefs have been retained by the uncivilized folk of more advanced civilizations, and the senseless parts are to be regarded as 'survivals' of their earlier and cruder form. The main thesis of these investigations is, that the "supernatural stuff" of ghost stories is the same the world over, whether in the hut of Bushman and Hottentot, or in the more elaborate illusions of a modern drawing-room séance.

## FREE TRADE AND PROTECTION.

By EDWARD C. HEGELER. In No. 62.

Political questions have not been introduced into THE OPEN COURT; but as the burning questions of the day must be judged from ethical principles, the problem of Protection or Free Trade is here viewed from the religious, *i. e.*, humanitarian standpoint. The general ethical law is: "Aspire to a higher humanity." How shall we attain to this higher humanity? by protection? by restricting other nations from competing with us? by taking advantage of temporary international circumstances? No. Experience shows that competition is the foundation of progress. The truly ethical policy is that which affords the greatest opportunities and offers the least obstacles to the onward movement of the human race. Thus, from the humanitarian point of view, protection fails to stand the test.

## THE PSYCHIC LIFE OF MICRO-ORGANISMS.

ALFRED BINET. In Nos. 49, 50, 51, 55, 56, 57 and 58.

In the whole domain of Natural Science no field of investigation affords such a fascinating complexity of phenomena or such a vast wealth of vitality as the Kingdom of the Protozoans, the minute organisms revealed to us by the aid of the microscope. They inhabit the water we drink, the food we eat, the air we breathe. They live as parasites in the intestines and flesh of animals, and in plants; aiding or injuring their hosts, as the case may be. They lie dormant in a particle of dust, a legion in number. They roam free and unconfined in a drop of water, to them a world. Infinite in number, variety of size and manner of appearance, the same beings that the unaided vision of man cannot alone discover, form no unimportant factor in the construction of continents and in the configuration of the surface of the globe. They are the simplest known forms of life, and every contribution that throws light upon their mode of existence, cannot fail to be of transcendent interest to biologist and scientists in general.

M. Alfred Binet, the collaborator of Ribot and Péro, and one of the most eminent representatives of the French School of Psychology, has presented in this series of articles the results of the most recent investigation into this department of Life. Every phenomenon that the improved methods of microscopic research have shown to be indicative of an exercise of intelligence, will, or feeling in these minute beings is fully discussed and analyzed. M. Binet has added much by these articles to the psychology of the microscopic world; he has opposed many theories, confirmed others, and advanced many conclusions of his own. The articles have been translated from the *Revue Philosophique*, and the original cuts procured from the publishers.

## PROF. WILLIAM D. GUNNING.

A Memorial Address by Frederic May Holland. In No. 61.

Prof. William D. Gunning died at Greeley, Col., on the 8th of March, 1888. His active and exemplary career of sixty years was devoted to the advancement of scientific thought, and marked by an uncompromising loyalty to truth. The memorial address, by Mr. Frederic May Holland, is a just and fitting tribute to a noble life.

## PLANTATION FOLK-LORE.

L. J. VANCE. In Nos. 47, 48, and 49.

Mr. Vance reviews and discusses the movement and widespread interest in popular tales which has produced the recent collections of Negro Myths by Joel Chandler Harris ("Uncle Remus") and Mr. Charles C. Jones. These tales form an important addition to the Folk-Lore of the New World, and Mr. Vance's review will be welcomed by all who wish to acquire a comprehensive estimate of the significance of these Myths to comparative literature and the science of comparative ethnology.

## THE HIBBERT LECTURES AND THE GAULISH PANTHEON.

By S. ARTHUR STRONG. In No. 63.

An instructive essay upon the purposes of the Hibbert Foundation, with a review of the recent lectures by Prof. John Rhys upon the religion of the ancient Celts. The original investigations of Prof. Rhys have thrown a new and welcome light upon the forms of belief in ancient Gaul, Wales, and Ireland, and they are regarded as a monumental work in the province of philological archaeology.

## THE SPIRITUALIST'S CONFESSION.

By MONCURE D. CONWAY. In No. 63.

An interesting article upon the recent confession of the Fox Sisters at the Academy of Music, N. Y., with a short historical sketch of the Spiritualist movement in America and England.

## DRUMMOND'S NATURAL LAW IN THE SPIRITUAL WORLD.

JAMES HERRIN. In No. 56.

An instructive criticism of a book "that has created a sensation in certain orthodox circles, and which, when superficially considered, has the appearance of substantiating certain Christian dogmas by scientific analogies." Mr. Herrin points out the inconsistencies resulting from the further development of Drummond's doctrines and mentions several natural principles which were not admitted into the analogy.

## THE QUESTION OF IMMORTALITY.

Is treated in the Editorial of No. 25, "Evolution and Immortality." It is shown that Immortality according to the Monistic view is immanent; it is a continuance of ourselves in our children, in our ideas and in the work we have done during life. Rudolf Weyler in his essay, "THE PROCESS OF PROGRESS," in No. 24, speaks of death as a mere transition and C. Billups in a letter of No. 25 criticises the wrong notion of a transcendent immortality as taught by Dualism.

## DETERMINISM VERSUS INDETERMINISM.

Prof. GEORG VON SZYCKI. In Nos. 25 and 26.

Prof. Georg von Szycki is Professor of Philosophy at the University of Berlin. His name is well known beyond the boundary of his country. The problem of the Freedom of the Will has perhaps never been treated in a clearer and more forcible manner. Contributions on the same subject have been published from E. F. Powell and Xenos Clark.

## THE ANIMAL SOUL AND THE HUMAN SOUL.

CARUS STERNER. In Nos. 37, 41, and 43.

An essay full of fine thought and psychological depth. Carus Sterner well understands to follow a subject as historically developed in the realm of human opinion and as ultimately affected by the light of Modern Science. The question of the relation of the animal to the human soul has ever been of interest and in this essay we find it attractively yet accurately treated.

## ETHICS AND PUBLIC LIFE.

W. M. SALTER. In No. 45.

The well-known lecturer of the Society for Ethical Culture in Chicago bravely probes the wounds of our public life and shows his patriotism by boldly denouncing the evils and wrongs of American politics. But he is no pessimist; he does not despair of improvement and progress. He knows very well that men "of Roman virtue" still exist. Mr. Salter wants to elevate our conception of politics, so that the best men in the community would lose their repugnance to public life; that they would enter it once more to make it great and illustrious.

## THE INDIVIDUALITY OF ATOMS AND MOLECULES.

Rev. H. H. HIGGINS M. A. In Nos. 41 and 42.

Mr. Higgins says: "Evolutionists have to choose between discontinuity and the recognition of a universal principle of life, which may be regarded not as mechanical, but as inherent in the primordial atom." This idea underlies the theory of J. G. Vogt also. But Mr. Higgins attributes an individual *bius*, or life-unit, to every atom, while Vogt postulates a continuous, contractile, elastic world-substance, wherein the atoms of modern chemistry are made to be centres of condensation. Mr. Higgins hypothesizes endows each atom with an idiosyncrasy which comprehends all that determines its individuality and makes it what it is. The essay should be read in connection with a letter in No. 43 upon "The Origin of Life and the Problem of Memory."

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Translated from the *Revue Philosophique* by *μικρ.*\*

It would be of the highest importance to know what is the seat of the phenomena of the life of relation in the bodies of Micro-organisms. We have seen that Micro-organisms are the equivalent of a simple cellule, composed, according to the classic plan, of a protoplasm, of a cellular nucleus, and of an enveloping membrane.

Each of these elements plays a part of special importance in the vital phenomena of these beings. Long since, scientists have attributed movement, sensibility, and the prehension of foods to the protoplasm. This was the result of direct observation. While observing an *Amœba*, for example, the protoplasm is seen to undergo modifications of form and to throw out pseudopodia, either for the purpose of effecting a change of position, or to seize alimentary substances. The protoplasm, accordingly, seems to be the sole agent of all these phenomena. Likewise, the vibratile cilia of the Ciliates, which are at once organs of motion, prehension, and touch; the suckers of the *Acinetinidæ*, which are special organs of prehension, are nothing else than outward expansions of the protoplasm proper.

As regards the enveloping membrane, the same cannot discharge any psychical function; firstly, because it is a product of protoplasmic secretion; and, secondly, because it is wanting in many Protozoans and even in many animalcula quite high in point of organization that, despite their nudity, exhibit marks of psychic life just as complex as those observed in Infusoria having a cuticle. The part acted by the nucleus does not so clearly manifest itself to direct observation; it executes no movements in the ordinary conditions of life; it remains motionless in the centre of the animal's body, surrounded on all sides by the protoplasm; unlike the latter, it is not in direct contact with the outside world.

The first phenomena that have enabled us to conjecture as to the significance of the nucleus, have to do with the division of cellules; when a cellule divides, the nucleus comes into action, it exhibits certain

movements and passes through complicated stages which have been given the name of caryokinesis.\*

But these complex phenomena simply show the function of the nucleus as an histological element; they do not afford any disclosures as to the physiological rôle of the nucleus in the cellule.

Other observations have enabled naturalists to surmise what phenomena are subject to the action of the nucleus. In 1881, Balbiani called attention to individuals belonging to the species *Paramœcium aurelia*, that were destitute of a nucleus and which nevertheless possessed the power of locomotion the same as ordinary individuals; whence, he concluded that the nuclei exerted no influence upon the phenomena of individual life. Shortly afterwards, Gruber observed small specimens of the *Actinophrys sol* which absorbed nutriment, changed their position in the liquid, and even fused with each other (zygosis), but which were nevertheless destitute of a nucleus.†

The idea then occurred to Gruber, and to Nussbaum likewise, to divide the Micro-organisms by artificial means into several fragments, of which some would contain a nucleus and others not, and then to watch what would come of it. Gruber, to whose experiments the most importance attaches, chose as his subject of trial the *Stentor coerulesus*, a ciliated Infusory of great size, which exhibits a nucleus resembling a chaplet of beads (moniliform). He afterwards continued his experiments upon other species, and his conclusion was, that the power to regenerate lost parts belonged to all Protozoans, but that this phenomenon only took place when the isolated fragment contained some portion of the nucleus; in which case the animal reproduces all the organs it has lost in consequence of its dissection. Furthermore, the process of the formation is exactly the same as in the spontaneous division of these same Infusoria. The excitation caused by their removal is accordingly of the same character as the unknown excitation that provokes the natural division of the body.

From these experiments, the part acted by the nucleus is indicated by complete evidence. Gruber shows that in a single instance only can a fragment without

\* Translation copyrighted.

\* *κάρυον*, nut, nucleus, and *κίνησις*, motion, disturbance.

† Contributions to the *Biologisches Centralblatt*, 1885, p. 73.



a nucleus form itself anew; and that is, when the fragment contains an organ in course of formation, as happens, for example, during the spontaneous division of the animal. This amounts to saying, that the presence of a nucleus is necessary to give the impulse to the formation of the organ, but that it is not necessary to the completion of the organ when the impulse has once been given.

Lastly, if the fragment is totally destitute of a nucleus, it does not re-form itself so as to constitute a complete animal again; if the fragment possesses neither mouth nor peristome, it does not reproduce a new mouth and a new peristome; yet the fragments continue to live and to move. The absence of a nucleus does not suspend the functions of motion, sensibility, nutrition, or growth. This conclusion is, in our estimation, too sweeping, as we shall see further on.\*

M. Balbiani has recently repeated these experiments of artificial division, and, while confirming in general the results of Gruber as to the function of the nucleus in the vital phenomena of ciliated Infusoria, he has endeavored to fix with more exactness a certain number of important points. His first experiments, like those of Gruber, were conducted upon the *Stentor caruleus*, a species of which the size renders it better adapted to this sort of experimenting. In an observation which we shall take as a type, and which is represented by the figure sent to us by M. Balbiani, the body of the *Stentor* is cut by two transverse sections; three divisions are obtained, each of which contains a fragment of the nucleus. We will remember that the nucleus of the *Stentor* is like a long string of beads; it is not at all rare to see a fragment of a *Stentor* contain one or more beads.

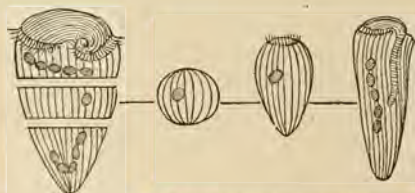


Fig. 12.—Artificial division of the *Stentor caruleus*.  
(After Balbiani.)

Let us follow the phenomena presented in the middle segment. This segment contains only a single grain of the nuclear chaplet; directly after severance, it assumed a globular shape; the day following, it had lengthened, had grown a tail at the posterior extremity, and upon the anterior part there had appeared,

distinctly outlined, a crown of cilia longer than those upon the body; in other words, a peristome had formed; the day after, the fragment had increased considerably in bulk, and in two days more the animal had formed a mouth. During this time, the nuclear grain had multiplied: five, in fact, were counted. The animal had the normal form; its size, however, was a little smaller than that of the ordinary *Stentors*. Thus, through the action of a small quantity of nuclear substance, the fragment has been completely reconstructed.

It frequently happens that the artificial severing of the animal causes various deformations in the fragments. The deformation disappears with the greatest rapidity in fragments containing nuclear substance. The wound heals instantly; directly after severance, the two edges of the wound are seen to adjust themselves to each other.

In all these particulars, the experiments confirm the results obtained by Gruber.

M. Balbiani desired to ascertain what would happen if the division were made during the state of conjugation.

Conjugation, as we know, aims at replacing an old, spent element, that has lost its physiological properties, by an element of new formation proceeding from an attendant nucleus (nucleolus) exchanged between the individuals in conjugation. The point in question was to ascertain whether the nucleus that was beginning to disappear, had lost its regenerative power. In the *Stentors*, during conjugation, this old nucleus breaks, and its nuclear globules are scattered to all parts of the protoplasm. When at this stage, the body of one of the *Stentors* is divided in such a manner that the fragment contains some of the scattered globules that came from the old nucleus. It is quite evident that such a fragment is obtainable only by mere accident.

In an experiment which we again cite as a type of many others, the fragment containing the elements of the old nucleus tends to reconstruct itself; this fragment, which represented the posterior part of the animal, presented, the day following, a rudimentary peristome; the reconstruction did not go beyond this point: it was left incomplete. Accordingly, the old nucleus loses its power of regeneration.

As to the phenomena presented in fragments containing no nuclear substance, M. Balbiani has made decided advances in the question; he has completed the experiments of Gruber, he has also corrected them, and he has reached conclusions essentially different.

In order to understand more thoroughly the phenomena connected with the absence of nuclear substance, the author has directed his attention to another species, the *Cyrtostomum leucis*, which has the

\* We have taken as our guide, with the permission of M. Balbiani, the lectures delivered by that eminent authority at the Collège de France, in May, 1887.



advantage that it can be kept longer alive than the Stentor can, on a glass slide holding a drop of water. The *Cyrtostomum* is a large ciliated Infusory of more than four-tenths of a millimeter in length. Its protoplasm is differentiated into two layers, one of which, the cortical, encloses very heavy trichocysts; the other, the endoplasm, holds alimentary substances. The animal exhibits upon one of its faces a mouth, shaped like a long narrow buttonhole, and upon the other face a contractile vesicle, from which crooked and anastomosed passages radiate. It is easy, by making a transversal division, to obtain fragments without nuclear matter; the nucleus of the *Cyrtostomum* being formed of a single, round mass. But it is not easy, on the other hand, to obtain fragments likely to live, since this animalcule has a dense ectoplasm, and, when severed, this layer, which is not very retractile, does not grow together again and close the wound; the sides remain separated, the water comes in contact with the endoplasm, which swells, bulges out, and runs from the wound; the animal may thus void itself completely, dying of diffidence. It occasionally happens that the animal voids itself only in part, and that the nucleus escapes with a small piece of the protoplasm. Then, if the wound draws together, we get a fragment that has thrown out the nucleus by its own action.

We shall not speak of the actions of the fragment containing nuclear substance; they are the same as observed in the case of Stentors: the fragment rapidly reconstructs itself and re-forms a complete animal.

Let us mark more closely the fragment without nucleus. Such fragments continue to live for some time; they have been kept alive as long as eight days; but they do not reconstruct themselves; they do not even assume a regular form; the part of the body facing the section retains its obliquity of truncation. At the start, for the first few days, the movements continue; a curious circumstance connected therewith is, that the fragments continue to move in the direction in which they would have moved if they were placed together to form a complete individual. The vibratile cilia are in no wise altered; they shake with the same animation as before. Only the movements of the animal are a trifle irregular; but they exhibit the same marks of volition as seen in normal individuals. The vesicle continues to contract.

The power to seize food is also retained when the fragment without nucleus contains the mouth; the mouth ingests alimentary substances. If the *Cyrtostomum* be given grains of potato fecula, which it is very partial to, the fragment without nucleus, but with a mouth, swallows these grains and fills itself with them. It is not known whether it digests them.

This much was observed in the first stages, and Gruber was wrong in stopping at this point.

At the expiration of a certain time, varying between the third and fourth day, alterations of structure are noticed in the fragment, that are probably traceable to the absence of the nucleus. One of the first to take place is the disappearance of the marks of differentiation which we have observed to distinguish the endoplasm from the ectoplasm. The dark granules that fill the interior of the body congregate in the centre by abandoning the peripheral part; then these granules scatter and come to a position just beneath the cuticle, which denotes a deliquescence of the plasma. The layer of trichocysts undergoes changes and disappears. All these alterations result from an actual disorganization of the plasma. The contractile vesicle shrinks, its pulsations decrease, the radiating passages disappear. The body of the animal, which in its normal condition is elongate, becomes rounded; its movements flag and consist of nothing but a rotation of the body about its own axis; at last the animal becomes motionless and dies of diffidence.

These changes are not due to lack of sustenance, as one might suppose; for fragments that have a mouth and swallow food, pass through the same alterations as those that have no mouth.\*

It is superfluous to insist upon the importance of these results, obtained by a method that might be called experimental physiology applied to unicellular organisms. Although the experiments have been made solely with ciliated Infusoria, the results of the same may be extended to all cellules, for the Infusoria are nothing more than autonomous cellules living an independent life.

The conclusion from the above researches of M. Balbiani, which, as we have seen, go far beyond those of Gruber, is, that the nucleus is not necessary merely to the regeneration of the parts, as the German professor believed. The error made by Gruber arose from the fact that he did not follow the career of the fragments deprived of a nucleus long enough; if he had continued his observations, he would have seen that the fragment becomes gradually disorganized. The nucleus, accordingly, has not merely a formative power; it does not merely regulate alimentation, readjustment of form, and the healing of wounds; it has not merely a regenerative power, enabling the plasma to reconstruct complete the organs lost by artificial severance. The nucleus is, besides all this, an essential factor of the plasm's vitality. If a fragment of

\* M. Balbiani has informed us, upon request, that the fragments of *Cyrtostomum* furnished with nucleus can be kept alive for a much longer time under the same conditions (that is, in a drop of water on a glass slide kept in the moist chamber of Malassez): in this way it is possible to keep them alive for the space of a month, by introducing into the liquid a few Infusoria to serve them as food. On the other hand, the fragments deprived of nucleus by section live for only eight days at the most.



protoplasm be deprived of its nucleus, the fragment remains alive for some time, but afterwards undergoes disorganization.

Such are the facts, extremely complex, and consequently difficult to summarize by a formulated statement.

We certainly cannot regard the protoplasm as inert matter; but what appears probable is, that the protoplasm receives from the nucleus the communication, the delegation of physiological powers. The nucleus is in a certain sense the focal seat of life in all its forms.

If we get rid of the nucleus by artificial section, the fragment of enucleated protoplasm continues to live for some time, having received from the nucleus an impulsion that has not yet been exhausted; but after a certain length of time, the impulsion given by the nucleus not being renewed, the protoplasm runs its course and dies.

From the psychical point of view, which more particularly occupies our attention here, how are the results of these experiments in cellular vivisection to be explained? When a fragment of an organism, deprived of nuclear substance, is seen to move about freely and with the same activity as if it still possessed its nucleus, we are constrained to admit that the phenomena of the life of relation, or movement and sensibility, have their seat in the protoplasm. But it is probable that such physiological capacities as the powers of nutrition, are not inherent in protoplasm; they depend immediately upon the presence of the nucleus, for they disappear little by little and finally vanish a few days after the removal of the nucleus.\*

It may be mentioned in passing that there are certain psychical properties which the nucleus apparently does not transmit to the protoplasm, but which it retains for itself; this is the case with the instinct of generation. We have already seen that, during the epidemic periods of conjugation, the *Paramecia* which have their nuclei overrun with parasites cease to conjugate with animals of the same species. The destruction of their nucleus by the *Bacteria* produces in the *Paramecia* the effect of actual castration.

The removal of the nucleus, accordingly, causes the interruption of the following functions and in the following order as to time:

1. The regenerative and reproductive property of the plasma;
2. The vitality of the plasma, and the psychical functions.

The psychologist will notice with interest that the psychical function of the protoplasm outlives the re-

generative function for an appreciable length of time: a fragment of a cellule which, having been mutilated by the act of severance, is unable to correct its outward form, or to secrete a fresh cuticle, or to reconstruct its lost organs, is nevertheless still capable of perceiving sensations and of responding thereto by movements. Psychological life is consequently a property of living matter which appears to be less complex than the regenerative property, inasmuch as it ceases later.

To summarize, the nucleus plays the primordial rôle in the cellule; if, to use an old comparison of Aristotle's, we compare the protoplasm to the clay, we must compare the nucleus to the potter that fashions it. The nucleus comprehends all the physiological properties, the totality of which goes to constitute life.

#### A PHILOSOPHICAL VIEW OF THE LAW OF CORPORATIONS.

BY CHARLES T. PALMER.

(Concluded.)

Blackstone classifies all legal rights into the "rights of persons" and "the rights of things." (8) Mr. Thomas Cooley, commenting upon this classification, uses the following language: "All individual rights must be and are *rights of persons*. They may be rights which concern their personal safety or liberty, they may be relative rights pertaining to them as members of families, or civil, or political bodies, or they may be rights to possess, control, or enjoy inanimate things. To speak of the *rights of things* is likely to convey an inexact idea, though correct enough in the sense which is hereafter explained. By the rights of persons we are to understand rights which belong to and are possessed by persons, but in that sense there can be no rights of things. As between man and inanimate or animate things, duties cannot be imposed so as to give the latter rights."

More than one legal principle might be adduced to support this theory. It is manifestly absurd to hold that an inanimate thing, incapable of performing or exacting the performance of an obligation, can, even by the policy of law, be vested with rights. Blackstone himself never intended to convey such a thought. All the rights known to moral ethics are such as vest in natural persons. Legal rights are such moral rights as Courts sanction by the enforcement of a remedy for their violation. Like the title to real estate they cannot remain in abeyance. They must vest in a human agency or be non-existent. Since it is thus manifest that inanimate, though corporeal things, are not capable of having or acquiring rights, how much more is it apparent that that which is both *incorporeal* and *inanimate* cannot have or acquire rights.

\* The difficult question here, is to ascertain whether the psychical properties of the protoplasm are destroyed through the direct effect of the disorganization of the plasma, or whether they disappear a short time before the process of disorganization and in consequence of the absence of nuclear substance.

(8) 1 Black's Com. 122, Note 2 (Cooley).



"That a body framed by the policy of man, whose parts and members are mortal, should in its own nature be immortal, or that a body composed of many bulky, visible bodies should be invisible, in the common acceptance of the words, seems beyond the reach of common understanding. A corporation is as visible a body as is an army, for though the commission or authority be not seen, the body instituted by that authority is seen by all but the blind. When, therefore, a corporation is said to be invisible, that expression must be understood of the *right* of many *persons* collectively to act as a corporation, and then it is as visible, in the eye of the law, as any other right whatever of which *natural* persons are capable. It is a right such as every member has a freehold in and all jointly have an inheritance, which may go by succession." (9)

If, therefore, a corporation has rights, they are such as belong to its members. If it has privileges, immunities, and capacities, they are such as its members do enjoy as natural persons. It is said that only the State has power to create a corporation. But even this power cannot be exercised without the consent of the members of the corporate body. Until they have accepted the charter, no corporation is formed. All the powers contained in the charter are bestowed upon them and their successors. (10) It, the corporation, has no existence until after their acceptance. That which has no existence, cannot be the recipient of legal rights. A thing that cannot receive even the charter which calls it into being, has not progressed very far in the possession of those rights which entitle it to the denomination *a persona*.

What is the true nature of the privileges the members receive? They are granted permission to act as a collective body, under a common or corporate name, by which name they may hold and transfer property; may sue and be sued; and may do all things incident to the management of the corporate undertaking. As members of the corporation they may have perpetual or indefinite succession, *i. e.* the individual membership may change without effecting a dissolution of the corporate body; privileges open alike to every citizen who applies for them, and in which there is no special franchise.

One fact is worth a thousand theories, even in the discussion of a legal proposition. If a corporation prospers, the members of it prosper according to their individual interest. Against all the world, the property of the corporation is theirs individually and collectively, notwithstanding it is held in a corporate name and their interest is subordinate to the corporate will and purpose. The right of property in the

so-called entity is necessarily and purely *nominal*. The *real* parties in interest in every controversy wherein a corporation is involved, are the *persons* who constitute its membership.

It may be suggested that this nominal right of property is sufficient to justify a nominal personality. If jurists had taken this view there would be little cause for criticism. Questions of corporate rights have been determined upon the theory of actual, and not nominal personality. (11) The personality of the members has been said to be merged in that of the legal entity. (12) Corporations are regarded as the creatures of the State under whose jurisdiction they are formed, and are said to be entitled to only such privileges as are not expressly forbidden by the laws of other States. (13)

Under this rule legislation has been repeatedly upheld impugning the privileges of citizenship, as guaranteed by the Federal Constitution.

In *Bank of Augusta v. Earle*, the United States Supreme Court, Ch. J. Taney presiding, held: That the members of a corporation cannot claim their rights under the constitution, to make contracts in other States when acting in a corporate capacity; and that the Court would not look behind the artificial being to ascertain the individual rights of its members; (14) and so held notwithstanding the same Court, Ch. J. Marshall, presiding, had previously decided that, for the purpose of determining a question of jurisdiction, the Court would look behind the corporate entity to ascertain the residence of the members who compose it. (15)

In the light of subsequent history, it may not be difficult to understand the influences which prompted Chief Justice Taney to thus elevate the law of the particular State over that of the nation. Certainly, the reason of the rule assigned by him, is not sufficient to sustain it. "We fully assent to the propriety of *U. S. Bank v. Deveaux*," \* \* "but the principle has never been extended further than it was carried in that case, and has never been supposed to extend to contracts made by a corporation, especially in another sovereignty. If it were held to embrace contracts, and the members of a corporation were to be regarded as individuals carrying on business in their corporate name, and therefore entitled to the privileges of citizens in matters of contract, it is very clear they must" \* \* "take upon themselves the liabilities of citizens." "The result of this would be to make a corporation a mere partnership, in which each stockholder would be liable to the whole extent of his prop-

(9) 1 Kyd on Corps, 15.

(10) "This" (the charter) "is plainly a contract to which the donors, the trustees, and the state, were the original parties." *Opin. Ch. J. Marshall, Dartmouth College v. Woodward*, *Supra*.

(11) *Bronswick v. Dunning*, 7 Mass. 415.

(12) *People v. Assessors*, etc., *Supra*.

(13) *Bank of Augusta v. Earle*, 13 Peters 519.

(14) *Bank of Augusta v. Earle*, *Supra* (1839).

(15) *U. S. Bank v. Deveaux*, et. al., 5 Cranch, 61 (1809).



erty, for the debts of the corporation." "The constitution" \* \* "certainly never intended to give the citizens of each State the privileges of the citizens in the several States, and at the same time exempt them from liabilities which the exercise of such privileges would bring upon the individuals who were citizens of the State."

This may by some be regarded as an argument against the existence of corporations, but has no bearing upon the question whether the privileges of citizenship shall be denied. By the policy of law, the private property of individual members is exempt from liability for corporate debts, not only in one State, but in all States, and the fact that the privilege is sought to be exercised in a corporate capacity furnishes no legal reason why the clause of the constitution should be declared inapplicable.

Chief Justice Taney further says: "Besides it would deprive every state of all control over the extent of corporate franchises proper to be granted."

Modern legislation has effected great changes in the nature of corporate bodies. At one time only kings had power to grant a corporate franchise. Numbers of men, and even single individuals, were constituted *bodies politic* (?) as a mark of royal favor. No unrestrained prerogative can long endure. Parliament early claimed the right in conjunction with kings, to grant corporate privileges; and, in many instances, reviewed and even modified the kingly grant. The principle that only public necessity could justify the grant of corporate powers, became imbedded in the British constitution. The power of the State legislatures to grant unlimited and inviolable charters, was, likewise, curtailed in the United States; and now it is almost universal, that private trading-corporations can be formed only under general laws. The private trading corporation of to-day are not unlike a great limited partnership, wherein all the members are special partners. The change has been so radical as to almost suggest a change of name, the substitution of the word *incorporation* for that of *corporation*; implying thereby, that the body is merely a collection of individuals, acting in an incorporate capacity.

According to the ancient civil law of Rome, the one restriction placed upon the formation of corporations was that their business should be lawful. (16) According to the genius of modern legislation, that is the only restriction to be placed upon them now. By the laws of most states, a corporation may be formed by the mere act of voluntary association, in the manner prescribed. It is conceded that the same business might be conducted by the same individuals, in the same manner, under any form other than that of a corporation. In states where corporate privileges are

equally open to every citizen, and now that the basis of every private trading-corporation is purely conventional, resting upon the contract between the members of it, just as the basis of every co-partnership is conventional, (17) it is difficult to determine why these institutions should not be placed upon the same footing as co-partnerships in respect to this great constitutional privilege. Why the Supreme Court of the United States should, in the case of *U. S. Bank v. Devaux*, recognize the true principle of corporation law when determining a question of its own jurisdiction, which could not affect the merits of the controversy, and should refuse to recognize such principle when determining a question of substantive right, is beyond the reach of ordinary comprehension.

It may occur to many that a corporation can sue and be sued by its members, and if regarded as a collection of individuals, the rule of common law procedure, that no man may be plaintiff and defendant in the same suit, will in such case be impugned. Too much truth has already been sacrificed in order to reduce law to an exact science, and since it is manifest that, in reality, a corporation is a collection of individuals and not an entity, it is sufficiently accurate to regard the case of a corporation suing or being sued by its members, as an exception to the general rule.

Scholastic refinements which have no foundation in fact, like falsehoods, must be constantly varied to meet the exigencies which truth unconsciously thrusts in the way of error. That a being, "invisible, intangible, and existing only in contemplation of law," cannot entertain human thoughts and passions is apparent to the simplest mind, and, whereas, it is the settled rule of criminal law that a person cannot be convicted of crime who is incapable of criminal intent, it was early determined that corporations could not be punished for crime. (18) This doctrine would also exempt them from responsibility for a great variety of torts. "Actual malice" is a necessary ingredient of certain forms of libel. "A wilful intent to deceive," is an element of actual fraud. These, like criminal intent, are psychological facts, and since a corporation has no mind, it cannot logically be made responsible for offenses in which mental processes are a part. But such a deduction left the community at the mercy of these institutions. Courts, accordingly, shifted their ground, and held in effect, that there was such a thing as constructive malice; said that they would impute malice and deceit to these creatures, as arising out of the nature of the act complained of, and so hold them responsible for their torts as if they were natural persons.

It may seem unprofessional to thrust common

(17) 1 Morawetz, Sec. 3.

(18) The Law of Corp'n. Boone, Sects. 78-79-83, and cases cited.

(16) 1 Black's Com. 472. Proffatt on Corp'ns, 11.



sense in the face of legal reason, but the ordinary mind fails to see how it is more consonant with correct law to impute "malice," than to impute "criminal intent." One depends as much upon a human intellect as the other; both are equally impossible to an artificial person.

Courts early recognized the human agency behind a corporation for the purpose of administering punishment for its offenses. While a corporation cannot be punished for crime, its *members* acting by and through it may be. (19) There is no disposition to complain of this rule, but it seems that since the offenses of corporations are punished by inflicting the penalty upon its individual members, the rights of such members, as individuals, ought to be recognised. Persons should not be permitted to commit crime through a corporate entity with impunity, and, on the other hand, they should not be deprived of their constitutional privileges because they seek to exercise them in a corporate capacity. It is not sought to deprive the state of its control of corporate institutions, but it is contended that that control should be placed on a broad, philosophical basis. That it should grow out of the nature of the employment or business engaged in, *not because of state lines, and territorial limitations, but because the law should operate upon individual citizens*, both for the purpose of restraining crime and of protecting legal rights. Then incorporated companies, of every state, would stand upon an equal footing before the law. Then the great masses of mankind will realize that corporate bodies are composed of men like themselves, who have combined their talent, wealth, and energy for the promotion of industry; and those who are engaged in corporate enterprises can be made to feel that their responsibilities to the public, and their privileges conferred by the public, are correlative and co-extensive.

With the breach between capital and labor ever widening and widening; with the so-called upper and lower classes drifting farther and farther apart; with the angry head of Anarchy thrusting itself above the surface of popular feeling, and goading men on to destruction; with the ever increasing wealth and power of the few overshadowing and threatening the liberties of the many, courts are forced to take some advanced ground upon this vexed question if they would avert irreparable calamity.

The spirit of the age bespeaks individual development, the genius of democracy promotes individual equality, the ethics of law demands individual responsibility.\*

(19) 1 Morawetz, Sec. 732, and cases cited.

\* Mr. Palmer has signified his intention to follow this article with another, showing the practical application of the doctrine here adduced, to the control and regulation of "Trusts."

## FORM AND FORMAL THOUGHT.

## III.

## THE ORDER OF NATURE.

Formal thought represents the mere laws of thought in their abstractness, and has been acquired by abstraction. The mere forms of thought exhibit a wonderful regularity which excites our admiration all the more from the great advantages man derives from it. This regularity of formal thought, which is expressed in all logical laws, arithmetical calculations, and in all mathematical conceptions, has naturally grown in our mind as the psychical expression of a physical regularity in the arrangement of the various brain-structures and their combinations.

The arrangement of brain-structures in certain regular forms has been effected in accordance with the same laws that govern the development of forms generally. Therefore, the problem "why man happens to be a logical and reasonable being," turns out to be the same as that "why are the cells in plants arranged in a certain order?" and as that "why do crystals possess a certain regularity?" The problem common in these three questions is: "Why is the world a cosmos (an orderly arranged whole) and not a chaos?" It is the same problem that Kant proposed when he asked: "How is Nature possible at all?"

The problem has been solved differently by different philosophers, and there is no mark that better characterizes a philosophy than the answer it proposes as an explanation of the order of the world. Supernaturalism says: The order of the world is due to a special ukase of a Creator. Materialism, on the other hand, declares that order is the product of chance. Both views have much more in common than appears at first sight. Materialism and supernaturalism are antagonistic and their explanations are irreconcilable. Nevertheless, both start from the same supposition which, from the monistic standpoint, appears to be erroneous; both are dualistic in so far as they consider the world as one thing, and order as another. Order, they declare, has been imposed upon the world either by a transcendent legislator or by a blind chance. Supernaturalism teaches that in the beginning there was *tohuwabohu*, 'the earth was without form and void,' and materialism similarly begins the history of the world with chaos.

Theological dogmatists anthropomorphize God to such an extent that they compare him to a watchmaker, and the world to a watch. The order of the world, they imagine, has been fashioned to his designs. It is not in itself necessary, but posited by his will. It is necessary only in so far as his intention makes it so. On the other hand, materialistic thinkers similarly explain the order of the world, if not as the result of a wilful act, yet as the fortuitous outcome of blind



chance. One of them expresses his opinion as follows: "The first elements, after testing every kind of position and production possible by their mutual unions, at length settled in the form and way they now present."

In opposition to both views, the monistic conception considers the world as a cosmos, *i. e.* an orderly arranged whole. Monism says: "The world and the phenomena of the world are orderly arranged, according to mechanical laws."

Consider how many billions of other combinations of the atoms in an amoeba are possible, or at least thinkable! And nature should have tried all these infinite possibilities, or part of them, before creating the amoeba, and then the hydra, and then the worm, and so forth! Oh no! The order of the world is no hap-hazard effect, it is no fortuitous outcome of chaos. *There is no chaos and never has been a chaos.* Even in the gaseous nebula there is order and law, and it appears as chaos only in comparison to the more evolved state of a planetary system. Thus the barbaric stage of savage life appears to us as lacking in social order; and our present state of civilization, it is to be hoped, will appear to future generations as the chaos out of which their better arranged society emerged.

Kant says on this subject: "The aforementioned expositors of the mechanical theory of cosmic genesis (Epicurus, Leucippus, and Lucretius) derived every arrangement perceptible in the cosmic system from fortuitous accident, which caused the atoms so to hit together that they made up a well-ordered whole. Epicurus, indeed, was so presumptuous, as to require the atoms to swerve from their direct motion without any cause at all, in order to be able to meet one another. Every one of these philosophers carried this nonsensical principle so far, as to ascribe the origin of all animate creatures to this same blind concurrence of atoms, and actually derived reason from what is not reason (*Vernunft* from *Unvernunft*). In my system of science, on the contrary, I discover matter joined to certain necessary laws. In its complete dissolution and dispersion I see a beautiful and orderly whole naturally arising. This does not occur through accident or at hap-hazard, but it is seen that natural properties necessarily bring it about." Kant argues that this necessary order is a proof of the existence of God. We argue from our standpoint that this order is due to the laws of form. It can be ascertained and comprehended by an application of the laws of formal thought. This order produces, on the one hand, the *intelligibility* of the world and, on the other, the *intelligence* of rational beings. In its highest stage this order appears as a moral law to which rational beings voluntarily conform so as to be in unison with the whole cosmos. This order, we maintain, is immanent in the universe

and, in fact, *it is God*. Human reason mirrors this order in the sentient brain of a living being and thus the sacred legend is justified in declaring that man has been created in the image of God.

The laws of order are omnipresent and eternal. The omnipresence and eternity of these laws does not denote transcendence, or unknowability, or supernaturalness. Nothing of the kind! It simply means that as they are in one case, so are they rigidly in all others. In their most simple shape, the laws of formal thought (logical, arithmetical, mathematical, etc. rules) are recognized as self-evident and necessary, so that we attribute to them absolute certainty and universality. The more complicated processes of higher algebra, higher mathematics, or highly involved logical ratiocinations, appear less absolute to those who are not familiar with abstract reasoning, but are after all just as absolute. We are, by reason of their complexity, liable to be easily mistaken; but, errors on our part excluded, they in themselves are quite as certain and universal, rigid and necessary, as those simple rules which are generally accepted as axioms.

Kant solves the problem "How is Nature possible at all?" in the following way. The highest or most general laws of Nature, he argues, are within us and can be stated a priori, independent of sensory experience. He thinks it is a strange and wonderful fact that our formal thought (the rules of arithmetic, mathematics, logic, etc., which are a priori) agrees so precisely with the highest (*i. e.*, the most general) laws of nature, which can be ascertained and verified a posteriori by experience. Kant sees only two ways of solution. Either the laws of pure reason, he says, have been gathered by experience from nature, or, on the contrary, the laws of nature have been deduced from our a priori rules. The former solution is impossible, since the formal sciences are proven to have been formulated with the exclusion of all sensory experience. "Therefore," says Kant, "the second solution only remains. Reason dictates its laws to Nature"; *i. e.* our reason is so constituted that it conceives everything in the forms of space, time, and the categories of pure reason. Space, time, and the categories, are a part of the thinking subject, which cannot but think in these forms, and must thus transfer them to the objects. Our surroundings affect us by what we call sensory impressions. The sensory impressions are the raw material only from which the well-ordered whole of nature, as an object of science, is created by the synthetic faculty of reason. Reason with the help of formal thought shapes this intellectual world in our minds, which is, so to say, projected outside of ourselves into our surroundings.

Kant has taken into consideration two ways only. He overlooked the third and most obvious explana-



tion. His explanation, therefore, will be seen to be one-sided and insufficient. The third possibility is that which has been propounded in the editorials of No. 64 and 66. According to our explanation, the formal (the highest or most general) laws of Nature and the formal laws of thought are identical. Their agreement is not wonderful but inevitable as both are expressions of the forms of existence in general.

Kant's explanation is *one-sided*, because if the formal laws of Nature have been dictated by the thinking subject, it does not explain why the formal thought (our knowledge, *a priori*) is so precisely verified by experience. If we see, as it were, the order *into* nature, how is it that this imposition upon nature is not frustrated? Nature is by no means pliant to any fictitious dictation of subjective laws *a priori*. It frustrates incorrect *a priori* reasoning; but tallies with correct and exact calculations. Therefore we conclude, that the form of nature is the same as that of our reason. The forms of thought agree with the forms of existence for the reason that the forms of thought are only a special kind of the forms of existence.

Kant's explanation is, further, *insufficient*; it does not explain how formal thought originates. And this insufficiency of Kant's explanation, we believe, has given rise to many errors. This gap in Kant's philosophy, we think, has been the place in which mystical followers of Kant have been enabled to construct their ontological or supernatural illusions. The transcendental conceptions of pure reason have been declared by them to be of transcendent\* origin. The opposition of John Stuart Mill and his school to Kant's conception of the *a priori* arose, as Mr. Mill confesses in his autobiography, from his considering the transcendental philosophy as an imposition of this kind—an imposition by which inveterate beliefs and deep-seated prejudices could be consecrated.

According to our solution, the radical difference obtaining between formal and material (between what Kant defines as *a priori* and *a posteriori*) is not neglected; on the contrary, its fundamental importance is fully recognized and firmly established. The conception of necessity which is the basis of all science, has found its justification as attaching everywhere to form—the laws of form being everywhere the same. The order of the Universe is thus recognized as an immanent necessity. This necessity can be traced with the assistance of formal thought everywhere, as shaping or having shaped the forms of existence. The laws of form being the same everywhere, our reason can, if not properly dictate, as Kant says, yet inform us about the form of existence in the whole universe. The laws of formal thought being

absolutely and universally applicable, are our guide which like the thread of Ariadne safely leads us through the labyrinth of the manifold sensory experiences. It is this method, and this is the only one, which frees philosophy of mysticism, be it the mysticism of supernaturalists or of agnostics.

## A FUTURE LIFE.

BY LOUIS BELROSE, JR.

"A future life?" I hate the very sound.  
Does man so feel for man, is earth so warm  
With love in all its workings multiform  
That we must turn away and cast around  
For worlds to vent it on? Has reason found  
A remedy against the dismal swarm  
Of Nature's ills,—the pestilence,—the storm,—  
That it must seek a task beyond her bound?  
Be thine this life, and whether prose or rhyme  
Live it, and leave the next, if next there be,  
To those unfortunates who make a crime  
Of all that's love and joy and sympathy,  
And like a cock-roach on the brink of time,  
Go wag their feelers at eternity.

II.

"Their faith may be groundless I grant, but if those  
Who believe are made happy, if trusting they find  
That life's burden grows lighter to bear, is it kind  
To deprive them of all the relief it bestows?  
Why teach them a truth that must add to their woes?  
Would you tell of the storm to the deaf and the blind?  
If the flash of the lightning and howl of the wind  
Were unnoticed, unknown, would you break their repose?"  
Well said; if they can, let them slumber, but pray,  
Is it our fault they hear us? must we that have eyes  
Lie still lest our feet wake the blind on the way?  
Are we to be blamed for the light in the skies  
If, seeing the dawn, we prepare for the day?  
Go talk to the sun and forbid it to rise.

## IMMORTALITY.

TRANSLATED FROM GOETHE'S POEM "VERMÄCHNIS."

"Kein Wesen kann zu nichts zerfallen,  
Das Ewig regt sich fort in allen,  
Am Sein erhalte Dich beglückt!  
Das Sein ist ewig; denn Gesetze  
Bewahren die lebend'gen Schätze  
Aus welchen sich das All geschmückt."

No being into naught can fall,  
The eternal liveth in them all.  
In All-Existence take delight,—because  
Existence is eternal; and fixed laws  
Preserve the ever living treasures  
Which thrill the All in glorious measures.

## SAGE AND FOOL.

BY W. D. LIGHTHALL.

O Fool, that wisdom dost despise,  
Thou knowest not, thou canst not guess  
Another part of thee is wise  
And silent sees thy foolishness.  
Yet, fool, how dare I pity thee  
Because my heart reveres the sages:  
The fool lies also deep in me;  
We all are one beneath the ages.

\* We have repeatedly called the reader's attention to the difference Kant makes between transcendent (unknowable) and transcendental (formal).



## BOOK REVIEWS.

MEN AND MEASURES OF HALF A CENTURY. *Hugh McCulloch*. New York. Charles Scribner's Sons. A. C. McClurg & Co., Chicago.

The above book of Mr. Hugh McCulloch is a work in many respects representative. Starting from New England in 1833, while yet a young man, Mr. McCulloch proceeded to Indiana when that State formed the most advanced post of the pioneer movement of the West. His reminiscences of the New England of this period are particularly vivid; they strongly corroborate the high reputation, now historical, that the bar, the clergy, the world of education and society of old New England, have attained.

With the exception, perhaps, of this one period, the centralized character of which may have arisen from local causes, the intellectual life of our country has been centrifugal in its development. The democratic and federal nature of our government, the necessities of national growth extending over so great an expanse of territory, the multiform character of our foreign immigration, with the long and undisturbed enjoyment of our possessions, have severally contributed to make that feature of decentralization which foreigners have so unreservedly praised in our political system, a fixed and leading characteristic of our social and intellectual life. The happy effects of political decentralization are undisputed. We may have lost in unity of national strength and purpose, but we have gained in variety of individual life and in the assurance of constitutional protection. In matters of culture, in "things of the mind", the very reverse has been true. The absence of central influence in the world of art, of letters, of science, and of education, has made unity of movement impossible; it has produced impotency of effort; it has prevented excellence of production. No more striking contrast is conceivable than that between our country's political and intellectual achievements. Strong men have founded commonwealths in every wilderness,—monuments of political wisdom and strength,—and they have merited undying fame. Rich men have founded universities and art-schools in every jungle and at every river bend,—pitiable memorials of their patrons' beneficence,—and they have unfailingly attained a merited oblivion.

It is these features that the work of Mr. McCulloch in some measure exemplifies. The pictures of frontier life, the heroic efforts of brave and fearless men breaking a highroad for the migration of nations, form the brighter side of our country's development; and of this Mr. McCulloch has given us a masterly sketch. On the other hand, we believe we can find traces of the above-mentioned absence of a standard of intellectual excellence. With few exceptions the personages and characters in public life whom Mr. McCulloch marks as eminent, "had no equals." Not that the author is indiscriminate in the objects of his praise; there are, indeed, many adverse criticisms in the work in the highest degree impartial and considerate. But those whom he did select for favorable mention have received their goodly quantum of eulogy. One is surprised to have been born amid such a profusion of excellence and never have observed its outward marks.

The financial and economical questions of the last fifty years receive careful, though intelligible, treatment. The remarks upon current political issues are unmarred by partisan coloring. The criticisms of the military features of the late civil war are just and timely. A not inconsiderable note of the work is the vindication of General McClellan; a work that attempts that, in the face of the popular apotheosis of General Grant, deserves an enormous circulation.

## NOTES.

Louis Prang's Christmas Cards, representing the heads of several bright-looking Prize Babies, have met with wide and well deserved attention.

Prof. Lester F. Ward, in his essay "Our Better Halves," reprinted from the *Forum*, discusses the Woman's Rights Question from the evolutionist's standpoint. Woman represents to him "Heredity," or the Principle of Stability. While not at all denying the average superiority of the male, he says: "The attempt to move the whole race forward by elevating only the sex that represents the principle of instability, has long enough been tried \* \* \* True science teaches that the elevation of woman is the only sure road to the elevation of man."

A. S. MILWAUKEE. Anonymous correspondence is not to our taste. Nevertheless, your wish to receive more information respecting our view of the problem of immortality will be complied with in a subsequent number.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

## CHAPTER XXVII.—Continued.

In intelligence and education the Sovereign was superior to most of his fellow princes. He had preserved much of the elasticity of his youth in advanced age; his bodily condition was excellent, and he took great care of his health; he was still capable, in case of necessity, of exertions which would have been severe to a younger man. In his youth he had devoted himself enthusiastically to the ebullitions of the then fashionable poetry, and had indulged in higher and freer aspirations than other men. He had at that time corresponded with learned men and artists of repute, and he liked to tell of his intimacy with some man of prominent mind. But his youth and manhood had fallen in a weak and decrepit period of our development. In the years when a foreign conqueror had treated the German princes as the greater part of them well deserved, he also as a youth had bowed to the foreigner, and abandoned the sinking vessel at the right time to save his title to his country. Since then he had ruled over a pitiful race of men, for he had entered upon his government at a time of great national exhaustion; he had found little that he was compelled to respect or fear, seldom any men firm enough to maintain their rights against him, and no public opinion that was strong enough to oppose his encroachment by a unanimous determination. His country was governed by officials, the official places were continually increased, and concerning every lost key of a village church there was accumulated a bundle of legal documents; he allowed these prolix forms of proceedings which benumbed the life of the people to remain unaltered, and only took care that the officials, whenever his personal interest came into play, should be pliant servants, who would procure him money, and withdraw from publicity any past wrong dealings of their Sovereign.

When he came into contact with his people, he was affable and good-humored, made it easy for petitioners

\* Translation copyrighted.



to approach him, listened kindly and sympathetically to all complaints, and threw the blame on the officials. He was not unpopular; sometimes the discontented grumbled at the high taxes, and over the costly expenditure of their master; and, here and there, an anecdote of his private life reached the public; but the new spirit of the times, which was beginning to stir also in his country, struggled only weakly in helpless assaults against his system of government. And although as a ruler he showed no inclination to remedy existing evils, yet, to those at a distance, he appeared personally to be a humane, good-hearted man. He had a kindly acknowledgment and a gracious word for every one; he knew much of the private relations of his subjects, and occasionally showed his personal sympathy for individuals; he loved children, for he would sometimes stop in the streets to notice pretty boys and girls, and inquire after their parents; he gave a fête to the school children of his capital every year, appeared at it himself, and took pleasure in their games.

His Court was in many respects a model of order and pleasing display. By all who surrounded him he was considered a distinguished man; and contrived—which is most difficult for a prince—that those who daily associated with him should always have a feeling of his superiority. He had never been a military man, and he did not refrain from sarcastic remarks on the warlike propensities of other princes. His Court long remained free from the military influence that prevailed in neighboring capitals. Gradually, indeed, he made some concessions to the fashion, and his aides-de-camp became important members of the royal household; but he was not on a comfortable footing with the officers of his household, and, in spite of his quiet manner, was always feared by these gentlemen. There were hours when it appeared that his reserved character was not only accompanied by severity, but by something quite anomalous, in addition: at such moments, cynical jests or brusque and irritative remarks fell from his lips, and he lost all consideration for the claims of those about him. But the young nobleman and aides-de-camp bore the secret thorn of their position without being subjected to the loud criticism which is often expressed by the courtiers of ruling princes, for the Sovereign understood how to treat them with respect before strangers. He held strictly to etiquette, even on their behalf, and cleverly took care of their interests in the presentation of favors,—orders and decorations, which foreign princes visiting his Court were bound to bestow; he never called upon them for anything contrary to the dignity of their office, and knew how to maintain his own and that of his Court in intercourse with strangers.

His wife had died early, and the inhabitants of the

capital always preserved a grateful recollection of that pale and delicate lady. It was said that the marriage had not been a happy one; yet the sorrow of the Sovereign was strong and lasting. He always spoke with great tenderness of the departed, and every year, on the anniversary of her death, fastened a garland in her mausoleum.

He had two children. The eldest, the Princess, had returned to Court after the death of her husband; and the Sovereign, in the eyes of the Court and the people, treated her with especial regard. He had opened his whole heart to the Court chaplain about her. "I should like to see her married again; she has a right to look forward to a brilliant life,—her heart is warm, her nature energetic; and from my experience, I consider a long state of widowhood a bad thing for the Princess. But I fear she will resist. I have perhaps, always been a weak father to this child. You know, venerable sir, how dear she has been to me."

Thereupon the pious gentleman, with folded hands, exclaimed: "I know it, and I know how warmly the heart of her Serene Highness is attached to her father." The people also remarked that the Sovereign was a good father. On every birthday a great Court fête was arranged for the daughter; and when the Sovereign once happened to be travelling at this time, he appeared suddenly, contrary to all expectation, on the evening of the birthday, in his travelling dress, at the Princess's opera-box, kissed her on the forehead before all the people, and said that he had hastened his return in order to wish her joy upon her *fête* day. Besides this, he neglected no opportunity of showing her the little attentions which in every father gave an impression of amiable gallantry, and which in every ruling Sovereign are doubly appreciated. Before every ball he sent his daughter a nosegay, and every time had it brought by the head gardener into the castle to inspect it himself. He was glad when distinguished travellers caused their arrival to be announced to the Princess, and always observed accurately whether she was well entertained during their reception. But, in spite of the great trouble the father took to give a good appearance to his relations with the Princess, it was thought that he had a secret dislike for her. It may be possible for a prince to be incomprehensible to those who are in daily intercourse with him in certain important concerns, but it is almost impossible to deceive them constantly.

The relations of the father to his son were very different. The latter, a sickly, shy boy, had been deprived of self-confidence by the way in which his father had watched over his education. The boy had not the capacity to assert himself; it was still a difficult task for him to overcome his shyness in his intercourse with strangers. When the list of persons in-



vited was handed to him, and he considered what he was to say to individuals, apt questions seldom occurred to him, and what he did bring out was so awkwardly done that it was very evident that he had been coached. Even to the persons of the Court the young Prince was silent and indifferent; the ladies and gentlemen were therefore inclined to assume that he was a little weak-minded. His father treated him with contempt, and his tone towards his son sometimes sounded short and harsh, as if it were not worth his while to conceal his disdain for him.

In this respect, however, injustice was done to the father. A reigning sovereign is easily led to consider his son as a young rival. The son will be his successor, and will, in the next generation, expose his father before all the world, upset all his arrangements, and be reconciled to all who have been discontented and his opponents. When he has become sovereign, it is impossible that he should not discover something under the former Government that has been wrong, and everything will be brought before him in which his father has failed and done evil. This would have been reason enough for the Sovereign to treat his son with coldness and reserve. Now he was nobody, a powerless slave, who was indebted to his father for every penny he had; but some day he would be everything. But his son was in his eyes insignificant; he moved in the prescribed track as if possessed of no will of his own; he had never defied him, was content with everything, and had yielded silently and respectfully to every command; it was not to be supposed that he could really govern himself, still less would he put his father in the shade. Thus by degrees was added to the father's quiet feeling of contempt, one of almost compassionate kindness. The timid submissiveness of the Prince was very satisfactory to his father: it was very agreeable to him to provide, as he was well able, a support for the weak reed which was to carry on the future of his family. To him he showed himself as he was: what he did for him was done with the feeling that he was benefiting another, not himself.

But just now, when he had been taking pains to procure a pleasure for the Hereditary Prince, the latter fell ill!

Ilse went with Gabriel through the rooms, trying to arrange them to please herself; she moved the tables about, examined the curtains, and looked doubtfully at the porcelain vases.

"I am surprised," said Gabriel, "that amongst this beautiful furniture one thing should be wanting, a cuckoo-clock. That would be very suitable: it gives life, when it opens its door, and makes profound obeisances as they do at Court. For they are very polite here, however deceitful they may be at heart. I have

no confidence in the lackey; he asks me too many questions. How would it be taken if we got rid of him? I could manage to do the housekeeping alone, with the maid. No cooking can be done here, for there is no kitchen; every drop of warm water must be brought from the cellar over there where the white jackets work like so many ghosts."

"There is no use worrying about it," said Ilse, decisively; "we must accustom ourselves to the regulations, pride must put up with much; we have no secrets, and I know you will be cautious."

"The gardener has placed a table and chairs, with flowers about it, in front of the house," said Gabriel. "Shall I take your work down; the sun appears warm?"

Ilse went in front of the house; near the door was a space bordered with plants in pots, a cosy spot in the warm midday sun: one looked from under the green arbor over the paths and smooth turf, up to the walls of the castle. Ilse sat down in a rustic chair, holding her embroidery in her hands, but looking up at the large stone palace, that rose with its towers and newly built extensions, some hundred steps from her. There dwelt the great ones of the earth, near to whom she had been so suddenly brought. She counted the rows of windows, and thought that there must be more than a hundred rooms and halls, all grandly and splendidly furnished, and she wondered how many people it must require to fill such a building that it might not look empty and desolate. Approaching steps disturbed her thoughts. A middle-aged gentleman was advancing up the gravel walk: he drew near: it was the Sovereign. Ilse rose, alarmed. He came up to her slowly. "Madame Werner?" he asked, touching his hat. Ilse curtsied low; her heart beat; she was unprepared for this meeting with him whom she had been accustomed from her earliest youth to consider the greatest man on earth. Though she had once seen him, it was but for a moment. Her thoughts, ever since the years when she had adorned him with the crown and sceptre of a mock king at cards, had attached themselves to him with shy respect. Often when she had looked at the Hereditary Prince, she had endeavored to form some conception of what his father must be like; what she had heard of him had not helped to diminish her fears.

The Sovereign looked with delight on the beautiful woman before him, who received his flattering greeting with silent embarrassment. "You are no stranger to me," he began, "and you have reason to be satisfied with the years that have passed since my walk over your father's farm. You may now try our mode of life. We also take pleasure in the spring, and I see the sun casts friendly rays on the spot which you have selected."

(To be continued.)



## METAPHYSICS.

THE scholarly editor of the *Boston Beacon* taking notice of the article "Metaphysics: the Use and Meaning of the Word," published in No. 64 of THE OPEN COURT, adds a few comments and quotations from Kant, as follows: "Metaphysics to some minds means 'that which lies behind nature.' This absurd notion was adopted by Schopenhauer, and pleases all dualists who think that the world is composed of mind and matter, just as they think men to be mixture of bodies and souls. Kant brushed away all such notions, and looked upon metaphysics as dealing with judgments that do not depend upon experience. The fact that the whole is larger than any of its parts is true without regard to our experience or to experiments. Accordingly Kant says that metaphysics deal first of all with a priori notions (R. V. 1757, p. xviii), that is, with notions that are true even if not put to a practical experiment, or as Kant himself says (l. c. p. 4), metaphysics deal with necessary

and severely universal truths. In a word, metaphysics may be described as "a priori science," or as a body of knowledge that deals in necessary conclusions from transcendental premises, that is, from propositions whose truth is independent of experience. No child ever reasons without having recourse to good or bad metaphysics. Metaphysics, therefore, may be said to be the most universal, and at the same time the least understood, of all sciences. Transcendental philosophy or metaphysics is "the system of all principles of pure reason" (Kant l. c. p. 27). The relation of metaphysics to every day thinking is about the same as is the relation of arithmetic to nature, or of optics to the use of our eyes. As we can see without knowing optics, but not without the law of optics, so we can reason without being metaphysicians, but not without obeying the laws of true or false metaphysics. Every man tries to be his own metaphysician, and generally succeeds—after a fashion. In the same sense every man is apt to be his own theologian."

## RECENT CONTRIBUTIONS TO "THE OPEN COURT."

## THE PSYCHIC LIFE OF MICRO-ORGANISMS.

ALFRED BINET. In Nos. 49, 50, 51, 55, 56, 57 and 58.

In the whole domain of Natural Science no field of investigation affords such a fascinating complexity of phenomena or such a varied wealth of vitality as the Kingdom of the Protozoans, the minute organisms revealed to us by the aid of the microscope. They inhabit the water we drink, the food we eat, the air we breathe. They live as parasites in the intestines and flesh of animals, and in plants; aiding or injuring their hosts, as the case may be. They lie dormant in a particle of dust, a legion in number. They roam free and unconfined in a drop of water, to them a world. Infinite in number, variety of size and manner of appearance, the same beings that the unaided vision of man cannot alone discover, form no unimportant factor in the construction of continents and in the configuration of the surface of the globe. They are the simplest known forms of life, and every contribution that throws light upon their mode of existence, cannot fail to be of transcendent interest to biologist and scientists in general.

M. Alfred Binet, the collaborator of Ribot and Féré, and one of the most eminent representatives of the French School of Psychology, has presented in this series of articles the results of the most recent investigation into this department of Life. Every phenomenon that the improved methods of microscopic research have shown to be indicative of an exercise of intelligence, will, or feeling in these minute beings is fully discussed and analyzed. M. Binet has added much by these articles to the psychology of the microscopic world; he has opposed many theories, confirmed others, and advanced many conclusions of his own. The articles have been translated from the *Revue Philosophique*, and the original cuts procured from the publishers.

## PROF. WILLIAM D. GUNNING.

A Memorial Address by Frederic May Holland. In No. 61.

Prof. William D. Gunning died at Greece, Col., on the 8th of March, 1888. His active and exemplary career of sixty years was devoted to the advancement of scientific thought, and marked by an uncompromising loyalty to truth. The memorial address, by Mr. Frederic May Holland, is a just and fitting tribute to a noble life.

## THE SPIRITUALIST'S CONFESSION.

By MONSIEUR D. CONWAY. In No. 63.

An interesting article upon the recent confession of the Fox Sisters at the Academy of Music, N. Y., with a short historical sketch of the Spiritualist movement in America and England.

## THE PROBLEM OF CAUSALITY.

In No. 55 is an editorial discussion of The Problem of Causality. The surpassing importance of this subject renders a clear conception of it absolutely indispensable to correct observation and sound reasoning. Despite this the problem has been unbecomingly neglected, and this neglect has given rise to innumerable errors and to an astounding lack of lucidity in scientific discussion. The problem is treated with clearness and precision; simplicity of presentation being especially aimed at.

The comments and discussions elicited by the article on "Causality" will be found to be especially instructive and elucidative. In Nos. 55, 59, and 60, Mr. William M. Salter advances a series of critical remarks, which are replied to in the same numbers by the articles, "Causes and Natural Laws" (No. 50), "Is There Anything Unknowable in Causation" (No. 59), "Is Nature Alive," and "The Stone's Fall" (No. 60). In No. 58, Mr. M. A. Griffen writes a letter upon the same subject; in No. 60, Dr. Edward Brooks, of Philadelphia comments upon the standpoint taken: all of which are accompanied by editorial comments.

## PLANTATION FOLK-LORE.

L. J. VANCE. In Nos. 47, 48, and 49.

Mr. Vance reviews and discusses the movement and widespread interest in popular tales which has produced the recent collections of Negro Myths by Joel Chandler Harris ("Uncle Remus") and Mr. Charles C. Jones. These tales form an important addition to the Folk-Lore of the New World, and Mr. Vance's review will be welcomed by all who wish to acquire a comprehensive estimate of the significance of these Myths to comparative literature and the science of comparative ethnology.

## THE HIBBERT LECTURES AND THE GAULISH PANTHEON.

By S. ARTHUR STRONG. In No. 63.

An instructive essay upon the purposes of the Hibbert Foundation, with a review of the recent lectures by Prof. John Rhys upon the religion of the ancient Celts. The original investigations of Prof. Rhys have thrown a new and welcome light upon the forms of belief in ancient Gaul, Wales, and Ireland, and they are regarded as a monumental work in the province of philological archaeology.

## DETERMINISM VERSUS INDETERMINISM.

Prof. GEORG VON GIZYCKI. In Nos. 55 and 56.

Georg Von Gizycki is Professor of Philosophy at the University of Berlin. His name is well known beyond the boundary of his country. The problem of the Freedom of the Will has perhaps never been treated in a clearer and more forcible manner. Contributions on the same subject have been published from L. F. Powell and Xenos Clark.

## REMINISCENCES OF MR. ALCOTT'S CONVERSATIONS.

MRS. EDNAH D. CHENEY. In Nos. 49 and 50.

In Nos. 49 and 50 THE OPEN COURT publishes a paper upon Mr. Alcott's conversations, read by Mrs. Ednah D. Cheney before the Memorial Meeting of the Concord School of Philosophy. Mrs. Cheney's recollections of Mr. Alcott lead us back as far as the year 1840. The reminiscences cover almost a half a century of Mr. Alcott's intellectual life. Abstracts are given of his conversations, incidents described in which noted contemporaries figured, and anecdotes told illustrative of Mr. Alcott's life and thought.

Wheelbarrow, in No. 52, contributes an additional reminiscence of this "amiable philosopher and venerable man."

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By L. J. VANCE. In Nos. 59, 60 and 61.

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By EDWARD C. HEGELE. In No. 62.

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No. 68. Vol. II.—42.

CHICAGO, DECEMBER 13, 1888.

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FORMER CONTRIBUTIONS TO "THE OPEN COURT."

MONCURE D. CONWAY, on Agnosticism, in No. 47.

Mr. Moncure D. Conway, in reference to the philosophical exposure of Agnosticism in the editorial article of Nos. 43 and 44 of *THE OPEN COURT*, declares that the Unknowable cannot in the least concern the religious nature. Only weariness of wing can have brought free thinkers to seek rest on this raft. Religion does not follow abstract and vague gods, it follows Jesus, Buddha, Mary, who may be known and loved. On the truth and moral value of these great figures, man can base his life. Mr. Conway concludes with the remark that the ethical side of monism has not as yet been made clear. Nature seems predatory and cruelly impartial between good and evil. Adherents of error survive more comfortably and increase more extensively than the disciples of truth. May it not be more truly said that there is a moral law in man to which nature must conform in order to be elevated and transfigured to a nobler existence? Mr. Conway's critical remark if it were unanswerable from the standpoint of Monism would drive religion and philosophy back into the dualism and supernaturalism of former times. And truly the supernatural, if it is justifiable at all, must be recognized in the moral nature of man, unless man is proven to be a part of nature. The editor's answer to Mr. Conway's criticism, in the same number, expatiates on the Oneness of Man and Nature, thus showing that humanity, culture and civilization are but a higher stage of the natural, and that morality does not stand in contradiction to, but is an observing of and a conforming to the cosmoical order of the All.

WHEELBARROW'S essays are contained in the following numbers of THE OPEN COURT:

Chopping Sand.....	page 353 in No. 13
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The Poets of Liberty and Labor. THOMAS HOOD.....	" 410 in No. 17
To Arms.....	" 615 in No. 22
The Poets of Liberty and Labor. Continued.	
GERALD MASSEY.....	" 745 in No. 26
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Economic Conferences. II. A review of Lyman J. Gage's lecture.....	" 993 in No. 40
Economic Conferences. III. A review of T. J. Morgan's lecture.....	" 1104 in No. 47

WILLIAM L. POTTER.

In the leading essay of No. 1, Mr. Potter discusses the question of the relation of individual existence to the aggregating power and well being of society. Nature in this matter should be our teacher, and the spinal world-plan of nature is the method of differentiation. It is a process of concentrating the forces of existence which is done through the process of self-preservation. This principle of selfishism is means only, not an end. Without it there would be stagnation, but the individual organism does not exist for its own sake. Nature's aim is higher, broader, richer life. The end of individual existence is the common good, the general well-being, and here is where the law of ethics and the obligations of religion bear upon social problems. Individual self-interest and enterprise only furnish the rough materials for the meliorations which mark the progress of the higher civilization.

GEORGE M. GOULD.

In Nos. 24, 25 and 26 Mr. George M. Gould treats of "The Ethics of Economics" rather as a quality absent from our economic system than as a living principle belonging to it. His doctrine is that all things produced by human labor represent the expenditure of human life, and that dollars and dimes, being representatives of wealth or earnings, are as drops of precious human blood. Therefore, in order to a rightful ownership of dollars, we must earn them; we must return to society a share of our own lives equal to the quantity we have received from our fellow men. According to Mr. Gould, whenever we eat or drink we partake of a solemn eucharist, where "the shadowy ghost of humanity calls out to us: 'Take, eat; this is my body. Drink ye all of this, my blood which is shed for many.'" This is not to be understood metaphorically, he says, but "as an exact statement of the fact."

While perhaps the theory of economics presented by Mr. Gould may not be scientifically true in all its parts, the moral he draws from the actual facts of our industrial system is true enough for warning and for guidance. The partnership of capital and labor is the panacea of Mr. Gould, the solution of the labor question. But from his ideal plans of industrial emancipation he excludes unpleasant facts. He allows only *profit-sharing* to come in, and *loss-sharing* is never taken into calculation. Yet it is the possibility of loss that has thus far defeated the "co-operation" experiment. It is doubtful if the operatives in any great factory would accept the whole plant as a gift, if compelled to take it on the terms by which its owners run it, the chances of profit and loss.

There is some extravagance in his language, but that is only a measure of his benevolent impatience at the inequalities and wrongs which refuse to be cured by his remedies. That the "ethics of economics" lies in the doctrine of "equivalence for service" is very likely true, but there is a difference of opinion as to the correct measure of that "equivalence," and a still greater dispute as to the means by which that measure shall be legalized and enforced.



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## WAR AND EVOLUTION: AN ETHICAL DISCUSSION.

BY PROF. CALVIN THOMAS.

Not long ago in reading a German periodical—it was the Berlin *Gegenwart*—I came across the following sentences purporting to be quoted from a work by one Dr. Lasson: "The result of war is always just, always a genuine judgment of God . . . War is the state's panacea and alone makes man truly man, that is, a rational *Naturwesen* . . . Therefore, national hatred is a good thing; for it maintains the permanent possibility of war."

I presume that this language excites in my readers the same emotion that it excites in myself, an emotion, namely, of indignation at the naked brutality of the sentiments expressed. At first one can hardly persuade himself that such talk can be seriously meant, and one is inclined to settle the matter peremptorily by remarking that this is the very philosophy that a wolf or an Apache Indian would write, if wolves and Apaches were in the habit of writing sociological reflections. Or, one thinks, perhaps, that it should be sufficient to say to the holder of such views: Suppose you were yourself some day to be attacked by a ruffian who chanced to be stronger or better armed than yourself, and after making such defence as you could, were to be maimed for life or killed: would the result be *ipso facto* right? Would it be a genuine judgment of God? Is it to this you would bring us with your struggle for existence and your law that the fittest survive?

One naturally inclines, I say, to make some such reply as this and to let the matter end there. Nevertheless, such a dismissal of the subject will hardly do for any one who believes in the possibility of a scientific ethics; will hardly do for one who holds that the sphere of natural law embraces everything that there is in the universe. For him it is necessary either to accept this philosophy, with all its brutality, as sound, or else patiently to show where it is unsound.

For there is no doubt that Dr. Lasson's doctrine is seriously meant; nor can it be treated as the isolated vagary of an individual. The words quoted were written several years ago, but a good deal of the same sort of "philosophy" is all the while finding its way into print at the present time. And this, not in Dahomey, or Tartary, but in the land of Goethe, Herder, and Schiller. The policy of "blood and iron" has done

more than to found the German Empire; it has prepared a congenial soil for the upspringing of a class of writers, who, in the name of science, seek to persuade us that war is not a survival of savagery, but is, and from the nature of things must be, a necessity; and not only this, but also that it is the grandest possible manifestation of national energy, and that the passions which provoke war and are provoked by it are among the noblest constituents of human nature.

Moreover, who can deny that the present order of things the world over gives some color of soundness to this philosophy? What is the creed in question, after all, but a translation into words of the logic of existing facts? Is not the situation about what it might be supposed to be if nature had really issued to the nations of the earth in some way a "last word" of some such import as this: Take care of number one and—*scabies extremum occupet*? Europe is, to use again the well-worn phrase, an armed camp where the nations are but waiting for a favorable opportunity for springing at one another's throats. The dissociation of religion, of human ethics, from practical statecraft is complete. Myriads of Christians are under arms, their energies withdrawn from productive avocations and their support resting as a heavy burden upon those who work, that they may learn to shoot and to march and to obey orders. And all to what end? In order that, when the occasion arises, they may kill and maim their fellow-Christians in as large numbers and as rapidly as possible. (If the cats of the world, without belonging to the same church, had organized for similar ends, how we should despise them for it.) Even in our own country, though we have but a very small standing army, there are indications enough that the war-spirit is as rife and as potent as it is elsewhere. In short, the process of civilization does not seem thus far to show even a tendency to do away with war. There never was a time when the so-called military virtues were more admired than at present. There is no other greatness so universally and so ungrudgingly honored as that of the successful soldier. Poets sing of him, and children are taught to honor his name just as in the days of Achilles. Methods of fighting have changed, but there has been no apparent diminution in the force of the passions that foment and wage war. The greed of selfish advantage, the prick



of offended pride, delight in discomfiture of an enemy, the courage to meet pain and death in battle, the enthusiasm of victory, the spirit of defiance—are all as potent in human affairs now as they were at the dawn of recorded history. In fact, it seems as if their potency had in very recent years been on the increase.

A hundred years ago the nobler spirits of Europe were speculating much upon the ways and means of abolishing war, and the outlook seemed to them hopeful. Seeing that the desolating wars of the past had usually resulted from court intrigue, personal ambition, or dynastic pride, it appeared but natural to suppose that in the incoming reign of reason, where governments should be carried on solely in the interest of the governed, the barbarities of war would drop out of human annals. The theme was a favorite one with philosophers, and did not lose its attractions even in the revolutionary and Napoleonic epochs. It was in 1795 that Kant wrote his essay, *Zum ewigen Frieden*, in which he laid down a few simple propositions that seemed to him fitted to serve as the basis of an international code that would insure a lasting peace. The idea of the universal brotherhood of man deliberately putting an end to the folly and misery of war, was one of the inspiring dreams of the early part of our century. Not much longer than a generation ago, Tennyson, looking out upon a world of nations, then as now "snarling at each other's heels," could still let his imagination range forward to the "parliament of man, the federation of the world."

But he would be a bold poet who should cast any such horoscope to-day; unless, indeed, he based his vision upon the theory that the frequency, the deadliness, and the misery of war, tend to diminish, as the machinery of war becomes more efficient for the destruction of life. In our generation the current seems to have set strongly against the realization of any ideal of human brotherhood. True, the ideal is not dead; men preach, and pray, and sing about it. It is a force in Sunday schools and missionary meetings. We have, too, our Peace Societies and Arbitration Societies. The Quakers, likewise, are still with us. But in the abodes of practical politics, of international statecraft, considerations derived from the brotherhood of man, or the barbarity of war, do not have the weight of a feather. If any one were seriously to mention such considerations, he would be called a silly sentimentalist. The reply to him would be: Your scruples will not do for this world. There is an iron decree that the nations must fight to live. It is hurt or be hurt, eat or be eaten. Or, if a people have conscience enough to refrain from encroaching upon their neighbors, they must at least be prepared to defend themselves against encroachment.

The attitude of mind that underlies the statesman-

ship of Prince Bismarck is described by his friends in this way: United Germany has a great and glorious mission to perform in the history of humanity. She does not desire conquest, does not wish to interfere with her neighbors. But on the other hand, she does not wish to be interfered with by others; she must have peace that she may be able to work out her own destiny in her own way. Therefore, surrounded as she is by jealous powers that care nothing for her welfare, but much for their own aggrandizement, there is no other course open to her but to make and keep herself strong enough to beat swiftly and surely any combination of enemies which can be brought to bear against her.

This is the kind of philosophy that now dominates the polity of the most highly civilized nations. Is it scientifically sound?

Let it be understood that I am here seeking merely to reason out a scientific problem. My aim is not to recommend a policy of "peace at any price," or any other specific rule of political action. The question is not of policies, but of principles; not of rules to work by, but of ideals to work toward. A man, even the best of men, is sometimes compelled by a present exigency to assume an attitude or adopt a line of conduct which, viewed abstractly, he does not approve and would not like to see made a general rule of action. So it may be with nations. Germany suffered bitterly a long time from weakness and disunion. It seemed *willing* to be trampled on and so it *was* trampled on. Now it has become strong and united and must be ready to maintain itself against aggression. This is right—that is, there seems to be no other path of safety. I have, therefore, no quarrel with any one who defends the present policy of the empire as a *temporary necessity*, or as a means of serving notice that Germany will no longer be trampled on. But let such person admit that the necessity itself is a terrible evil which it should be the aim of statesmanship to get rid of just as soon as possible. Let him say with Von Moltke that "war, even successful war is a misfortune," and a kind of arbitrament to be avoided by all honorable means. To do this is a very different thing from regarding the present militant attitude of the European nations toward one another as a "natural" and desirable condition. This is what certain writers apparently do, and do in the name of science and philosophy. It is this "philosophy" of which we ask whether it is sound.

If it is, then the outlook for a humanely disposed person is gloomy enough. For religion, the force to which it seems most natural to look for help, has shown itself singularly impotent to repress war. It has been historically a promoter rather than a restrainer of fighting. For eighteen centuries the Christian world



has had before it the command "Thou shalt not kill;" a command admitted to be of divine authority and reinforced in the most solemn manner by the precept of Christ. It is hard to see how religion based upon the supposed will of a divine being can furnish more cogent grounds of action than this. And yet the command of non-resistance issued by "the sublime mystic of the Galilean hills" has never shown the slightest potency to keep his professed followers from fighting. The bloodiest of wars have been fought in his name, and to-day, when two Christian peoples conclude to go to war with each other, this command of the master is about the last thing that any one on either side thinks of. On the contrary, the war is sure to be conceived by both parties as God's service, and that not only by the general mass, but by the very priests and saints of religion. Upon both sides godly men and gentle women who would go far out of their way to avoid hurting a kitten, deliberately send forth their sons to kill off their fellow-Christians by the thousand; and this they do with a prayer to the "God of battles" whom they always think of as fighting upon their own side.—In view of such facts, which no one questions, does it not seem as if only the most resolute optimist could look with much confidence to supernatural religious sanctions as a force likely to put an end to war?

But if not to supernatural religion, where shall we look? Have we a right to expect such a development at all? Are there any natural forces in operation that will tend to bring it about?

Upon this point I remark, in the first place, that the argument from practical necessity above alluded to—the argument that the nations must be ready to fight because the law of the world is a struggle for existence, in which the strongest prevail, and deserve to prevail—is just as applicable to individuals as to nations. In fact, it is in its application to individuals, if anywhere, that its real force is to be found. For a nation is only an aggregate of persons. Wherever any real struggle of opposing forces is going on, it is felt by individual men and women. It may be convenient for certain purposes of philosophical discussion to call the State "*Das Volk als wollende Person*," but we should not be misled by such an abstraction. The State is not a person, but a collection of persons, whose individual wills conflict variously with one another, and also with the wills of other persons belonging to other nationalities. It would seem, therefore, as if we should get some light upon our main question by inquiring what the practical result is in a society where the individual endeavors to maintain himself against opposing forces (it matters little whether these be members of his own or of a neigh-

boring tribe) by cultivating his muscle, going armed cap-a-pie, and assuming generally the *noli-me-tangere* attitude toward his fellow-beings.

Fortunately we are not compelled to imagine what happens under such conditions. History furnishes object-lessons by the myriad, and every one of them shows that the Bismarckian policy, when carried out by individuals in society, does not work. We find that in a state of affairs like that under consideration the guarantee of peace is at its weakest, and the opportunity for the individual to "work out his own destiny in his own way" simply does not exist. For a time, indeed, a particular bully, through the obvious superiority of his strength or of his arms, may overawe his fellows, but his reign is transient. Another soon appears who is not afraid of him, or two or three combine to pull him down. Feuds arise, and there is continual fighting, with the concomitant insecurity of life and property. The very habit of going armed and being always ready to fight tends to create easy and frequent occasions for fighting. Public opinion and private effort become mainly absorbed in those things that make for success in fighting, and other things that make for the symmetrical development of men as men, are neglected. Fantastic notions of honor arise. Physical courage, of the kind that dogs and savages usually possess in a high degree, and which in civilized men, if dissociated from moral courage, is as likely to do harm as good, acquires prodigious importance. The energies of the individual go very largely to maintaining his "honor" or proving his courage, and the result is that his freedom of movement, and so his development as man, are really impeded by his assiduous cultivation of the fighting virtues. This set of forces becomes, on the whole, a hindrance instead of a help to him in working out his higher destiny as a human being.

From this state of affairs another tends everywhere to evolve itself. In the lapse of time the right of free self-affirmation by means of physical force is taken away from the individual, and he is compelled to subordinate his belligerent instincts to a sentiment of justice embodied in public law. As this process goes on, it appears that the individual has been altogether a gainer. His faculties being no longer monopolized by those activities that make for the death or discomfiture of his fellowmen, his higher human capacities find room to assert themselves, and to grow. By surrendering the lower, illusory freedom of the savage, he has gained the higher, valuable freedom of manhood. And with his increased freedom has come, in a very real sense, increased strength. His total of virility has gained, and he is better able to maintain himself, and better worth maintaining, than was his



pugnacious ancestor. All this, we fancy, had been seen by Schiller when he wrote (speaking of man's position between God and brutes):

"Doch der Mensch in ihrer Mitte  
Soll sich an den Menschen reih'n,  
Und allein durch seine Sitte  
Kann er gross und mächtig sein."

But, now, is there anything that forbids us to apply to the nations this reasoning, which we find to hold good of individuals in society? None of importance that I can perceive. The forces that determine the career of a people are more numerous, their cross-play is more intricate, and requires a much longer time in which to "run down" than is the case with those that shape the destiny of an individual. But the forces are, after all, the same, and there is no good reason apparent why the causes that tend to evolve government by public law, from the anarchy of feudal *Faustrecht*, should not, in time, put an end to international fighting. Can there be any doubt that the world at large, and thereby every people in it, would be benefited in the same way and to the same extent by the suppression of war that a particular community is benefited by the suppression of private brawling? If all the energy and ingenuity which now go to perfecting the means for destroying human life could be released and turned into other channels, who can calculate the direct and indirect consequences that would ensue to the benefit of mankind?

Judging from the analogy of civil society, then, we have to look forward to an era in which the nations will recognize and act upon a paramount obligation to keep the world's peace. Standing armies will be reduced to a police basis, and international law will make it possible to combine the police forces of the world against any two ruffian peoples who should propose to fight out their quarrel instead of bringing it before the tribunal of the law.

This era will come about, not through some millennial change in the constitution of human nature, but from the natural play of forces now in operation. Sentimental considerations will make themselves felt. War is the most cruel and painful way of settling difficulties. Commercial and financial causes will come in; war is the most costly way of settling difficulties. A clearer perception of self-interest will work to the same end. At present, when our newspapers discuss the prospect of a general European war, their most common remark is that such a war would redound to the benefit of our country by affording an improved market for our products. But the time will come when our posterity will not look at things in that way. A fairly sensible undertaker hardly thinks of felicitating himself upon the prospect that a brace of ruffians in the street are about to engage in a fight that will result in death of one or both

of them. He does not think of his trifling interest in the sale of a coffin, but of the larger interest he has in common with all his neighbors in having a state of affairs in which ruffians are not allowed to fight upon the street. So it will be with regard to war when the general perception of self-interest shall become, let us not say more humane, but more correct, and a keener feeling for the solidarity of higher human interests shall have filtered down from the minds of the best into the minds of the many.

There are doubtless those who will smile at this as the emptiest kind of an empty dream, and I freely admit with M. Renan, that "la vocation du prophète est devenue dans notre époque singulièrement difficile." Still I venture to think that some such prevision, if we but allow time enough, rests upon substantial scientific analogies. It does not in the least require us to imagine men as becoming angels but only as learning by experience. Think of the mediæval baron as he existed, say in Germany, a few centuries ago. For him fighting was life's natural vocation. What would have been his emotions if some one had said to him some day, as he was riding out with his retainers to make war upon a neighbor, that in a few generations his descendants would not be doing that sort of thing at all; and not only that, but that they would have no wish to do it; and not only that, but that if they should attempt anything of the kind, millions and millions of people would straightway make it their joint concern to put an end to such proceedings? The change from then to now is really greater than from now to the epoch we have imagined.

The mistake which is often made in applying Darwinian conceptions to the facts of sociology is in putting too narrow a construction upon the phrase "struggle for existence." Struggle there must indeed be; this is the law of life. But with men and nations which have emerged from savagery this struggle is not a blind clashing of blind instincts, not a battle to the death for food and standing-room. It is still a struggle for self-maintenance and self-affirmation and in this struggle the fittest must and should possess the ground. But "fitness" has now become a very composite product, of which physical strength is at any rate but one factor. There are fossil mammoths among the nations as well as in the Siberian snows. In the aggregate of a nation's ability to maintain itself, there are many other qualities, as intelligence, industrial skill, enterprise, even virtue, that may count for more than physical strength. One of the "conditions" to which a national organism must continually adapt itself, is the state of human opinion; and of this the most important part is the general organized sense of justice. As a sociological force this is, in the end, stronger than iron-clads and breech-loading rifles.



Our reply, then, to those who urge that the pursuit of self-interest is the law of the world and that it is idle to preach against it, is this: Nothing is needed to put an end to war but a more enlightened selfishness. As a matter of practice, too, intelligence and sober reason, if men would but follow sober reason, could always find ways of attaining all honorable national ends without resorting to battle; ways, moreover, that would be less costly in every way, better for the interest of the parties concerned as well as for the rest of the world, and no less "glorious" if we but had more rational conceptions of what constitutes a nation's glory. But here comes in the difficulty that besets all progress: men do not act from sober reason, but from passion, instinct, and prejudice; and one of the strongest of all passions is patriotism—the descendant in civilized men of the tribal instinct of the primitive savage. Nothing, perhaps, is more characteristic of our century than the universal growth and strengthening of national sentiment. National feeling is really the dominant force in the world's politics to-day. And what is this sentiment for the mass of men? Usually a blind and bumptious vanity, hardly deserving a better name than chauvinism. It is the instinct that leads the average man in all countries to think as a matter of course, without investigation, that his own nation is the best on earth; that its ends are always righteous, and its methods commendable; that its men are the bravest and wisest, its women the brightest and fairest, its language the most melodious and forcible, its literature the richest, its history the grandest, and its destiny under the special and peculiar care of providence. It is the instinct which leads this same average man, while magnifying the good, and minimizing the bad qualities of his own people, to look down upon other peoples; to believe them false, or greedy, or otherwise immoral; to caricature and misrepresent them and to view them as enemies of God or of progress. Even among the educated how few there are whose patriotism rests upon a rational foundation, or who are at all open-minded when it is a question of comparing their own with other peoples.

And yet it is right here, if anywhere, that open-mindedness is particularly needed. It is a real educational need of our day that the schools of all countries should take hold of the work of rationalizing the patriotism of their pupils. The young everywhere should be taught to love their country for what is lovely and honorable in its history, but they should not be encouraged in the ways of chauvinism. They should be made to know and feel that loyalty to one's country is a noble sentiment but at the same time that it is not the only or the highest loyalty conceivable. They should be made familiar with the thought that, however much any one may owe to his own age and coun-

try, what he owes to all ages and countries is vastly greater; and that just as loyalty to one's city or state should acknowledge a higher loyalty to country, so this last ought to be merged in a still higher loyalty to what is good and great in the human record everywhere. Especially should the school aim to produce in this, as in other matters, a scientific habit of mind in the young. The school-boy, and no less the school-girl, should be encouraged to try to find out the *truth* about other nationalities, and to clear his mind of the cant and rubbish of national vanity. Our own country is not the one which needs least a pedagogical effort of this kind.

We are thus brought to take issue very decidedly with Dr. Lasson's doctrine that "national hatred is a good thing." To our thinking it is a very bad thing, and that not merely because it "maintains the permanent possibility of war," but because it is a stupendous obstacle in the way of getting the truth known and accepted as a basis of action. It tends to perpetuate falsehoods that rest upon nothing but ignorance and silly prejudice, and to make these falsehoods a prominent factor in international politics. In fine it makes for strengthening the hands of passion, instinct, and prejudice; whereas the growth of civilization in its highest or ethical aspect, means, to our thinking, nothing but the progressive subordination of human passion, instinct, and prejudice, to the dictates of sober reason.

#### PROFESSOR GUNNING ON MEMORY.\*

*Reprinted From No. 13 of THE OPEN COURT.*

You sit idly on a veranda in Florida, where the odor of flowers and blossoms regale you, but pass away. A woodpecker tells his song from a neighboring tree. Years pass and you forget it. You happen in the home of a professor in Indiana, and from a mocking-bird you hear the very song—the identical song—you heard from a woodpecker in Florida; while you were on the veranda a mocking-bird was perched, perchance, on the ridgepole and heard the song as idly as you, but its brain was a phonograph, and the symbols passed latent through five generations, when the phonograph began to unroll. In the common phonograph the words and tones of the human voice are latent in the dots and dashes of the ribbon, and the instrument speaks

\*The former editor of THE OPEN COURT who selected the interesting passage printed above, said in an editorial note on page 361 of THE OPEN COURT:

"Prof. W. D. Gunning gave a lecture recently at Keokuk, Ia., on 'Memory' in which he presented interesting facts and illustrations in support of positions which have been maintained in papers printed in this journal, by Mr. Edward C. Hegeler, Prof. Ewald Hering, and in abstracts of some of Ribot's works, prepared for and presented by Mr. Hegeler."

The extract from Professor Gunning's letter is reproduced in this number because of the relation it bears on the ideas set forth in the article "Spiritism and Immortality." Professor Gunning presents several wonderful examples of memory which extend through many generations and preserves not only certain notes of birds but even the same feelings connected with certain sounds.



back to you every word and tone. So the bird carries a chronograph in its brain. Where is Münchhausen with his story of frozen music which sang again as it thawed? Münchhausen told a story of a horse hitched to a church-steeple not so marvelous as the story which a horse tells of itself when it trembles at the scent of a lion it does not see, and when no odor of a lion had ever assailed its sense. How deeply were the attacks of the lion indebted on the brain of the horse perhaps five thousand years ago, and the phonograph again unwinds at a whiff from a lion's cage now.

Every organized being is such a phonograph. Darwin found the birds on the Gelapagos Islands so tame they would light on his hand. No man had been there to teach them dread. Since then men have frequented the Island, and now a bird at sight of man shudders as a horse at scent of a lion. The bird remembers how men stoned and shot his ancestors before he was hatched. At Rock Island the government forbids man to kill birds and articulate brutes. The memory of persecution is already fading from the memory of birds, turtles, and squirrels. Some had forgotten, some had dim recollection.

Under the touch of science instinct has stepped from its robes of kingcraft that held in awe the mind, and its name now is "unconscious memory." It is memory, physiological memory. Instinct may be called the "inherited experiences of a species."

Memory, in its lowest phase, is a function of organized matter. Limbs remember lessons of walking and walk automatically. The vast procession of life through ages of earth commensurate with the spaces of the heaven, ever widening, ever gaining new powers of perceiving, getting deeper emotions, never quite forgetting, until the age that it holds in unconscious memory all the ages foregone, and man is impacted memory of all yesterdays. The conception takes us into the inner temple of nature. Matter and mind are different phases of one fact. You know that the speech or song from the phonograph does not come from nothingness. It may be a mystery, but not a deep one to science; and if it were it would only type that deepest mystery, the unsolved problem of philosophy, the relation of the mind to matter.

The thoughts of man do not come from nothing; their underlying stratum is a gray, lace-like membrane. When you remember an incident of childhood it was indented on the life-stuff of the mind. The indented tablet gives up its record, and thoughts and fancies of the past flit across the field of consciousness. "Will you say that in assigning a natural basis to memory I am weighting matter with properties which it cannot carry?" But a few years ago elementary works on philosophy gave a full inventory of the properties of every form of matter. But who is there now whose

eyes are so clairvoyant over the realm of matter? Who could have thought that a sheet of paper could carry latent, as long as the paper endured, the tones of the human voice?

#### SPIRITISM AND IMMORTALITY.

*Spiritism* must be well distinguished from *Spiritualism*, although in popular speech the latter term is generally employed for the former. Spiritualism is that philosophical view which, in opposition to materialism, assumes spirit as the ultimate and universal principle from which the phenomena of the world are to be explained. Spiritism is the belief in spirits and the apparition of spirits. While spiritualism is a lofty conception of profound thinkers (such as Berkeley and Fichte) who boldly spiritualize the whole universe, spiritism, on the contrary, materializes even spirit itself and spiritual phenomena. With the spiritist the spiritual realm has become a world of spirits.

Spiritism, and the belief in spirits, may often have been occasioned either by successful impositions, or by mysterious phenomena, which for a length of time frustrated all attempts at explanation. But, ultimately, the origin of spiritism lies deeper; the source from which it is nourished, is man's longing for immortality. From the vague hope of life beyond the grave, and from the dread of being entirely annihilated, spiritism draws its strength; and all attempts at disclosing the deceptions of impostors, and at explaining certain marvelous phenomena which had been regarded as certain proofs by believers, will remain futile, so long as the spirit of man is considered as an entity, existing of itself and inhabiting the body during the time of life. The idea of immortality which is an exceedingly powerful factor in human emotions, must, in this combination, produce the most fantastical and nondescript errors, which, wherever they have been implanted, will take firm root in the human mind. Not that the errors possess that strength of themselves; they derive it from the truth with which they are mingled; and a total annihilation of ourselves is so utterly inconceivable, that we feel by an instinctive intuition, as it were, the truth of immortality.

The immortality of the soul is commonly understood to be the continuance of our conscious ego beyond death in the shape of a spiritual, bodiless being. This view rests on the principle that the soul is an entity which inhabits the body and can exist of itself; accordingly the ego is considered as a substance which is supposed to be the constant and continuous factor behind the transient states of consciousness.

The immortality of the ego stands and falls with the belief in a ghost-soul, and the only scientific evidence for the existence of a ghost-soul has been the supposed unity of consciousness. If our conscious-



ness were a substance, and if, as a substance, it possessed a unity, for instance like that of an atom, the ego of our consciousness would perhaps be indestructible. Kant's Critique of Pure Reason teaches that the ego, as an entity, is a fiction. We are aware of a series of ideas that become conscious in our mind. It is these ideas that are constantly present, but to consider consciousness as a substance that exists apart from its contents of ideas is an illusion, a fallacy or paralogism of pure reason. Modern investigations in physiological psychology show that the ego, with its chains of conscious and subconscious states, is the product of many factors under very complicated conditions. The ego forms a unity, *i. e.*, a unitary complex, or a compound system; but, of itself, it is not a unit. The *Einheitlichkeit* of the soul must not be construed as a rigid and ultimate *Einheit*. In a similar way the French school of experimental psychology, foremost among them Th. Ribot and Alfred Binet, have proved that the ego is not an entity constituting the "cause" of mental phenomena, but, on the contrary, that the ego is the "effect" of certain phenomena of mental activity. If this ego, as an entity, is an illusion, how can it be immortal? If a ghost-soul does not exist, how can it continue to exist? If a consciousness independent of its contents, which are the ideas that become conscious in our mind, has no reality, how can we attribute to it a permanence in *eternum*?

Although a ghost-immortality of disembodied spirits is impossible, man's existence is not a fleeting phenomenon of an ephemeral nature. His soul-life is not of yesterday, and does not vanish into nothingness to-morrow. His ideas as well as his actions are facts that continue to be factors in the future development of his race. The life of a single individual is not a separate and single event that begins with his birth and disappears again at his death. It is the product of a long evolution of many thousands of generations. Their works and thoughts live in the present generation, and our soul-life, our thoughts, accompanied with the same kind of feelings, will continue to exist in the future. Those who think, who act, and who feel like ourselves, possess our souls,\* and in them we shall continue to live and move and have our being.

It is objected that, as a rule, people do not care for such an immortality; they want the immortality of a ghost-soul. This is undoubtedly true, but whether they care or not, it does not alter the facts. If people do not care for this grander kind of immortality, they must be educated to appreciate it.

A Christian missionary in Greenland told his Esquimaux converts much about their future life in heaven, and when he was asked whether there would be plenty of whales and seals and walruses, and

whether the redeemed would have enough cod-liver oil, he suggested that they would no longer want such things. The Esquimaux then turned away and said: "What is the use of your heaven if there are no whales, nor seals, nor walruses, and if we can have no cod-liver oil. If such things don't exist, and if the most glorious joys are not even desirable in heaven, we don't care for it at all."

Similarly among us, those people who believe that the soul is a ghost which inhabits the body, do not care for any immortality unless it be that of a ghost-soul. They do not care for continuing to live in the life of mankind, and are satisfied to hover about as spirits, communicating with their beloved ones through raps and other primitive manifestations. They are like the prodigal son, who left his father's house and fed upon husks for want of better food.

All the most marvelous feats of mediums do not attain to that wonderful perfection for which our best performers in legerdemain are famous. The ingenious way in which they present their clever deceptions is also truly remarkable. The worst thing about spiritism is its dearth of ideas. The spirits show in their communications an extraordinary lack of spirit. If the manifestations were as true and undeniable as daylight, they would reveal a most pitiable state of spirit-life, "sans teeth, sans eyes, sans taste, sans—everything."

It is impossible to convince a spiritist of his errors simply by showing that he has allowed himself to be duped—so long as he believes in the immortality of a ghost-soul. The idea of immortality is strongly implanted in the human mind, because every living being feels that life cannot be annihilated; as Goethe says:

No being into naught can fall,  
The eternal liveth in them all.  
In All-Existence take delight,—because  
Existence is eternal; and fixed laws  
Preserve the ever living treasures  
Which thrill the All in glorious measures.

This consciousness of our indestructibility is so direct and immediate that, in a healthy state of existence, we feel an eternity of life in every moment, and only with the assistance of much contemplative thought and earnest reflection can we conceive at all the idea of death. Even if this earth, the intellectual life of which has found its consummation in mankind, should break to pieces and make a further and direct continuance of our ideas, our actions, and our soul-life impossible, we know that new life will grow from the wrecks of our world; that new suns will shine upon new planets peopled with new generations, who, like ourselves, will aspire to the same aims and struggle for similar, perhaps even higher, ideals.

The idea of immortality resting on a true instinct,

\* Compare THE OPEN COURT, page 396, first column, lines 1-11.



and on the natural conviction of the indestructibility of life, cannot be easily blotted out from the human mind, even though mixed with errors. And the idea of immortality need not be eradicated; we have simply to weed out the errors that grow around it by the slow and long process of patient education. Those who have freed themselves of the old errors that have attached to the conception of immortality look smilingly upon their former views, as the man thinks of his having been a child with childlike thoughts. As the Apostle says: "When that which is perfect is come, then that which is in part shall be done away. When I was a child, I spake as a child, I understood as a child, I thought as a child; but when I became a man, I put away with childish things."

The old view of considering our ego as a real entity is, as the sacred Hindoo religion expresses it, the veil of Maya that lies upon our eyes. The man who recognizes this ego to be a sham has become a Buddha, *i. e.*, a knower—one who knows; one from whose eyes the veil of Maya has been taken. He no longer lives the sham-life of egotistic desires that moves in the circle of never satisfied wants, but he has entered Nirvana. The annihilation of the ego is the condition of a better life, of a broader and higher existence.

This truth, though not fully realized in Buddhism, was nevertheless presaged by its great founder, Gautama. It has been mixed with pessimistic vagaries and monstrosities, but has at the same time afforded comfort to millions of people in their troubles and cares and agonies of death. This same truth is the basis of the Christian religion also, whose founder demands a surrender of our egotistic desires. Christ says: "Whosoever shall loose his life shall preserve it."\* And this same truth lies at the bottom of all true ethics. We must entirely surrender our ego and regulate all our actions by a maxim fit to become a universal law (as Kant expresses it). By lifting all our thoughts and intents to the broader interests of promoting life and of promoting higher forms of life, we cease to be single and separate beings, and become the representations of cosmic life, or in biblical terms, "The householders of God."

The surrender of the ego is a destruction of self and of selfishness only, but it does not imply, as has been assumed by pessimistic teachers and by the monks of a world-despising attitude, an annihilation of our existence and of life generally. It does not mean death, but life; not inactivity, but work; not destruction, but immortality. It means life and progress and aspiring labor, not in the service of egotistic purposes,

but for the evolution of existence in higher forms, for the development of our race and the realization of the ethical ideal.

All labor for egotistic purposes would be vain, for, we shall die, and the purpose for which we have worked would be gone. But if we consider ourselves as householders who stand in the services of a higher purpose than ourselves, if we aspire for a further evolution of cosmic life: the purpose of our lives will not die with us; we shall continue to live in our deeds and thoughts and in those who are inspired by the same ideals; as Schiller says:

"Art thou afraid of death? Thou wishest for being immortal?  
Live as a part of the whole; when thou art gone it remains."

This view of immortality is not less, not smaller and more meager, than the immortality of a ghost-soul, whose very existence is an unwarranted assumption. It is more; it is grander and sublimer; although those who have the veil of Maya upon their eyes, who still believe in that sham-entity of the ego, cannot understand and appreciate it.

Johannes Tauler, of Strassburg, one of the profound mystic preachers of the beginning of the fourteenth century, said: "*Wir müssen entwerden, um Gott zu werden.*"\* Our ego must be undone in order for us to become God. The higher life of immortality will be ours; but the price to be paid for it, is a surrender of the sham-existence of our ego. P. C.

## CORRESPONDENCE.

### SPIRITUALISTIC COMMENTS.†

To the Editor of THE OPEN COURT:—

To any one acquainted with the varied facts and phenomena which have forced many logical minds to admit that those who have lived in the flesh, now being called Spirits, can and do under certain conditions communicate with the living, and all those thus familiar with the facts only smile to read such articles as that of Mr. Conway in No. 63 of THE OPEN COURT. \* \* \* Denying those facts is simply loss of time to the objector, but he must make himself acquainted with them and then explain them if he can without reference to the dead, and I for one will be under lasting obligations to him. He is the very man I have been looking for for fifteen years. If all the commercial mediums in the world would renounce the whole thing and announce before the world that they have been practicing fraud and deception and nothing but fraud and deception, it would not have a feather-weight on my mind in relation to the facts on which I rest the irresistible hypothesis of spirit-existence and communication. T. W. W.

To the Editor of THE OPEN COURT:—

Mr. Moncure D. Conway points with ardent zeal to the folly and stupidity of the converts to a woman's deception. \* \* \* He alludes to a combination of favorable conditions, and names one, the dry and combustible state of religious growths. I would name one other at least, a waiting world. People of every sect and of

\* Quoted from memory.

† The above are extracts from letters to THE OPEN COURT from Spiritualists, commenting upon Mr. M. D. Conway's remarks upon Spiritualism in No. 63 of THE OPEN COURT. "Lay Reader," in omitted parts of the letter, vindicates the whole list of eminent men criticized by Mr. Conway for their spiritualistic beliefs.

\* The same idea is almost literally (though with the addition of "for my sake") repeated over and over again. Luke xvii. 33; Luke ix. 24; Matt. x. 39; Matt. xvi. 25; Mark. viii. 35; John xiii. 25; John x. 17.



none, had for long noted the raps and other occult phenomena. \* \* \* Science, probing what we were taught in the books to call matter, was pressed and crowded with watching and formulating its astounding transformations, could not look or listen, and cried: "One world at a time." Those whose mental gear possessed unity saw no "other" world—no hard and fast line walling out the unknown, a "Thus far and no farther", and sought—and continue to seek, to bring the occult phenomena of an unexplored state of matter into the field of observation and demonstration endowed with the concept of unity. They acknowledge nothing as discovered from the whole, and wait in contumely and calumny, seeking and treasuring data, until the rank and file of sciences shall have quarried the distance between them. In this course they relinquish all thought of the rewards and honors bestowed by a consensus of the Scientific Guild, well knowing they are only for those who attain tangible results for the market.

Mr. Conway brings ridicule, contempt, and aspersions, on these gifted and unselfish people. He sees them in phantasmal (?) procession "solemnly pressing their lips to the toe of the Fox woman," again he announces them as "at the feet of vulgar tricksters, when the fraud is united with unctuous sentimentalism," and again he hints an impeachment of their testimony in the special field of their professional labor. \* \* \*

The climax of Mr. Conway's free use of the illustrious list of names he introduces, is when he charges Dr. Alfred Wallace with having "smothered by emotional enthusiasm the brain which discovered the law of evolution." How will he verify the aspersions? Two years ago Dr. Wallace was called to America to fill the same position satisfactorily filled by Professor Tyndall fifteen years earlier, that of Lowell Lecturer in Boston. He made the tour of our cities. He wore the snowy crown of age, but no one has recorded that his brain was clouded or his natural vigor abated. Within a few weeks I have seen a small cast sent by him to a friend in America. The light in the eye is remarked by all who see it—not a very sure proof of decadence of intellect. \* \* \*

He throws stones while his own house is glass. The Fox sisters he calls imposters. If that is true, then they have been imposters for forty years. Does confession rehabilitate them? Able detectives are well-known to be shy of confessions. They are easily manufactured. They often recount awful deeds that have no existence but in the diseased imagination. There is a shrewd suspicion held by many who have no theory to build or destroy, that mediums being so plenty as to glut the market, the novelty of the exposé was devised, but that, too, is becoming *passée* and the sisters may yet appear in a new rôle and amend their confessions. It is also claimed by those who have taken much care to inform themselves that the "tricks" are genuine phenomena. You pay your money and take your choice. Mr. Conway accepts the confession as genuine and announces himself a convert in the outset of his article. He enlarges on the "abnormality" of the big toe, and says "toes able to hammer" were not numerous. However, that may be the toe-theory is not a new one. A New England divine, in the days following the Rochester knockings, cracked his toes to public audiences but he made no converts. Mr. Conway listened from a distant balcony to Miss Fox's toes and was converted on the testimony of a single sense. Figuratively he "presses his lips to the toe of the Fox woman," he "sits at the feet of a vulgar trickster." \* \* \* In spite of the sudden conversion by the penitent sisters, and his indulgence in the "human emotion" of a hope that the sisters will tell the whole truth and nothing else, Mr. Conway's real nature asserts itself, and the scent of delusion clings to him still. He pleads with them "to give the whole thing away," and seems to expect they will. But interest fails. The show at the Academy of Music has long been common in any country town where the expenses incurred were not above the ready money-resources of the actors. It was a stroke of business genius in the

manager of the Foxes to take the Academy of Music in New York and win a convert like Mr. Conway, out of his own field of Historic Criticism. \* \* \* LAY READER.

# PROFESSOR COPE'S PROPOSITION OF MARRIAGE CONTRACTS FOR TIME.

To the Editor of THE OPEN COURT:—

That the marriage tie, as at present existing, is a species of tyranny which falls very heavily on both men and women, I am far from denying. I have lived in many countries, and have known of few marriages which I could honestly consider satisfactory. It appears to me, however, that Prof. Cope's proposed five years' system bears almost as heavily on women as their present loss of freedom. Unless I misunderstand him, the woman whose marriage becomes a dead letter at the end of five years is to return to her father's, and either support herself, or be supported by her parents.

The objections to such an arrangement are all too apparent. Allowing that she brings no children with her,—and this would not usually be the case,—would she be satisfied to return to her old home and, virtually, place herself again under her parent's control? Could younger sisters and brothers be expected to welcome her? Would not the five years of absence have weakened their affection for her, hers for them? Finally, in the event of her bringing two or three children into a household of adults, would she not be entirely unwelcome? What an injustice to her parents, who have brought up a family of children, to expect them, in old age, to bear the annoyance of grandchildren.

It may be said that, according to Prof. Cope's plan, the father is to support the children. Be it so; but while the wife is earning her daily bread, being deprived of her husband's support, who is to care for children of a tender age? It is also an open question if the woman could earn her living. We will say that she has married on the five years' system, and at the time of her marriage was between twenty and thirty years of age; that she has borne her husband three children. Child-bearing and nursing will not only have occupied her entire time, but will have told on her health, her spirits, and her looks. During those five years she will have had neither the health, nor the time, necessary to establish any business relations, and she will have no business habits, which should be acquired early, as we all know. In fact, five of the most valuable years of her life will have been wasted on a man who breaks the tie that binds them, against her wishes, and gives her no equivalent.

We have to pay for most of the desirable things which we get in this world, and it seems to me but fair that if a man breaks the marriage contract, against his wife's desire, he should pay for so doing, since he takes from her what, because of her connection with him, she has learned to regard as her support. The rupture means nothing to a man, regarded from a practical point of view. His business goes on just the same, and instead of living in his own house, he boards, until such time as he forms another connection.

Prof. Cope takes it for granted that the woman will re-marry. This is by no means so certain. A woman, with two or more children, worn by bearing them, anxious as to her own means of support, and passed the freshness of youth, is not especially attractive to the average man. Moreover, she may be weak enough to regret her recreant husband, and men hate a gloomy woman. Any man who can earn a decent living, it is worth some woman's while to marry; but there are any number of women who have absolutely nothing to offer any man, to all outward appearance.

The effect on society of the changes advocated by Prof. Cope would be, indeed, curious. No married women would dare to have their girl friends in their houses. And young married men would see their "replacant" in every man who was civil to their wives.

If all girls were taught a trade, the advantages would be more



equally divided between the sexes. Perhaps nothing could be much worse than the existing state of things; certainly nothing could more endanger the health of the community than the awful system of prostitution which the present state of society tolerates. It is productive of ever-widening circles of misfortune.

Divorce, at all events, might be made optional. Once separation is really desired by either party, happiness becomes impossible. But until "the family" takes a different place in our social system this seems all we can do. The family is essentially for the individual. It has its foundation on the great ego. Men make a virtue of working for wife and children; but all the consideration the wife and children command comes from the fact that they belong irrevocably to the man. I once thought the family the highest outcome of civilization; but of late years I begin to fear that it is the foe of what is broad, free, and noble.

M. M. E.

#### THE MARRIAGE PROBLEM AND ETHICS.

Prof. E. D. Cope's essay discusses the Marriage Problem in a serious and considerate manner, and it deserves a careful attention. But we do not believe that his remedy of a contract-system for a definite number of years is desirable or practicable. All that can be done in the way of legislation is a more humane and equitable law of divorce. Otherwise we can expect the removal of much unnecessary suffering solely through the slow means of educating public opinion. Society is but too apt to judge harshly of every single case, where a marriage for some reason or other has proved a failure. The unfortunate ones, whether at fault or not, have often, in addition to all their troubles, to bear the opprobrium of a lifetime.

The remarks of Mrs. M. M. E., a literary lady who speaks from experience, undoubtedly possess much weight. The contract-system of Professor Cope would perhaps be worse than the present system is; and we may on this occasion state that Professor Cope, in his private letters, has in so far expressed his assent to our views as to say that he also believes that an alteration of the present laws will be of no avail unless public opinion be educated. To educate public opinion was his main purpose in writing the essay.

Professor Cope correctly states that "the union of a man and a woman in the social relation is not the creature of law but the laws are its creatures." We must not imagine that we can produce social conditions by laws. It is just the contrary; our laws are expressions of certain social conditions which have been developed in a natural evolution. Nature works out higher forms of individuals as well as of institutions, and we, the single individuals of the human race, have simply to obey her behests. By a willing obedience we can enhance, but by a willful resistance we can retard progress. We can even make any further evolution impossible and sink into a state of marasmus. Monogamy, as Professor Cope has set forth in his essay, has proven to be the basis of a higher civilization, and therefore it has instinctively, as it were, been regarded as a holy institution.

It is a great mistake on our part to imagine that the sole, or at least main, purpose of marriage is the happiness of the individuals concerned. We are mere instruments in the hands of nature who but too often cares very little for the happiness of individuals. The individuals have to sacrifice themselves, their lives, their labor, and their aspirations, to the aims of nature, and they must find their highest satisfaction in being or becoming useful tools for working out the progress of mankind. Let a man or a woman enter into marriage with an expectation of attaining personal happiness or comforts, or worldly goods and benefits, or of having henceforth an easy time, that marriage is sure to be a failure. But let both husband and wife be animated by the spirit of self-sacrifice not only in mutual love but mainly in the idea of attending to the higher duties of a progressive humanity, that marriage is sure to be full of

troubles and cares, full of work, self devotion and of anxiety, but in most cases it will be enriched with that elevating bliss which is unknown and unknowable to the self-seeker.

The solution of the marriage problem as we understand it, can be accomplished by education only. Public opinion must be educated. People must be taught that the purpose of life is not enjoyment or happiness; and the education of public opinion has to commence with our children. Let us educate our boys and girls, our youths and maidens, so that they think first of their obligations, that they look upon life as the performance of duties and upon marriage as a self-sacrifice for the purpose of working out the higher aims of mankind. Marriages are too often entered into in a wrong spirit. Hedonistic and utilitarian ethics have poisoned the feelings of the great masses of the people; and there are but few who are far-sighted enough to see that happiness is sure not to be gained if eagerly sought for. The more hastily it is pursued, the more quickly it flees from us. Happiness is a mere shadow, and if we rather seek for the satisfaction which is found in a faithful performance of duty, it will follow voluntarily and naturally. Happiness will never and must not fill our whole lives but there will be enough of it to give an agreeable zest to life. What would a life be that is brimful of happiness and lacking earnest labor and ideal aspirations, and what would a marriage be without cares and anxieties?

An alteration and even an improvement of our present marriage laws will accomplish little or nothing unless it be accompanied by an improvement of morals and of the ethical views which shape the morals of the day. A solid foundation of ethics is truly the burning question of the day; it lies at the bottom of all reforms, and without it you may continue to patch and mend in places, but no real reform, permanent in its nature, will be possible.

P. C.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXVII.

The Sovereign seated himself on one of the rustic chairs, pointing at the same time to another. "Do not let me interrupt your work. I am taking a walk, and beg to be allowed to rest myself for a moment here."

"The work is in idle hands," answered Ilse, "I was looking at the castle, and thinking how large the household must be that requires so much room."

"It is an old building," remarked the Sovereign. "Many centuries have contributed to increase it, and yet, in the opinion of the officers of my household, it is not large enough. One easily increases one's requirements. But then, again, one rejoices in withdrawing into a smaller abode. I myself once lived in this pavilion, alone, with only a few necessary servants. Such solitude does one good."

"That I can imagine," replied Ilse, sympathizingly. "But to such as we are it is something new to see so grand a style of life. The castle and its grounds with the blooming trees, are like large precious stones set in gold. It gives me heartfelt pleasure to have so near a view of your Highness's home; it helps to give one an idea of the mode of life of our gracious Sovereign."

"Then you still consider yourself a child of our country," said the Sovereign, smiling.

\* Translation copyrighted.



"That is natural," answered Ilse. "From my childhood I have heard of your Highness as our ruler; whenever I looked in the newspaper I saw your Highness's name; everywhere I have seen your Highness's pictures; and, since I have been old enough to go to church, I have prayed for your Highness's happiness and health. This is a bond of union; it is, indeed, only on one side, for your Highness cannot care about us all, but we think and care much about our ruler."

"And speak of him sometimes with dissatisfaction," replied the Sovereign, good-humoredly.

"Just as it happens, gracious Prince," replied Ilse, honestly. "One does not always speak well of one's neighbors; but, in serious matters and in trouble, a good heart shows itself. So it is with the Sovereign, each one forms his own idea of him according to circumstances, trusts in him, or is angry with him, and ends by thinking that he and his prince belong to one another."

"It were to be wished that so good a feeling might be shown by every subject," rejoined the Sovereign; "but fidelity is wavering, and personal attachment disappears."

"Many know too little of their Sovereign," said Ilse, apologizing. "How can they care for him when they see so little of him? For seeing does much: we at Rossau have seldom the honor of setting eyes on our prince."

"The feeling of that country has been described to me as unsatisfactory."

"We are situated in a distant corner, but we have a heart. Your Highness will scarcely remember the maidens at Rossau, who received you seventeen years ago at the triumphal arch. There were twenty; the little town could not produce any more. They all wore the national colors on their bodices and petticoats; they, of course, had to buy the dresses themselves. One of the maidens was miserably poor, but she was pretty, and did not like to be left behind, so she worked the whole week during the greater part of the night, in order to procure money for her dress. In her last illness, for she died young, she asked to be buried in this dress, as that day had been one of greatest honor and pleasure to her. But your Highness was hardly able to stop there; you drove quickly through the triumphal arch, and, perhaps, did not even see the maidens."

Whilst Ilse was speaking, she was secretly strewing bread crumbs beside her. The Prince observed her hand, and she excused herself.

"The finches call to their gracious Sovereign, 'Give, give!' The little ones are very tame here."

"They are probably fed by the servants," said the Prince.

"To love animals is the custom of our country!"

exclaimed Ilse; "and tame birds suit well with a royal castle, for all here should feel joyful confidence."

The Sovereign's glove fell to the ground, and as the loyal Ilse quickly bent down to pick it up, the Sovereign's eye rested for a moment upon her head and form. He rose slowly. "I hope, Madame, that you will be of the number of those joyful ones who place confidence in the possessor of this spot. As master of the house, I have made inquiry after the health of my new lodger. I wish that you may feel here some portion of the pleasure that you know how to impart to others."

He civilly acknowledged Ilse's respectful curtsy, and returned to the castle.

There the Chamberlain waited to report to him concerning the health of the Hereditary Prince.

"His Highness is unfortunately still obliged to keep to his bed."

"He must take care of himself," replied the Sovereign, graciously, "and not leave his room too soon."

#### CHAPTER XXVIII.

##### IN THE PAVILION.

The splendid iris colors wherewith Ilse had at first adorned her new abode gradually faded. As, instead of the steward and lackeys by whom she was received, there was now only a single servant, in a dark coat, to assist Gabriel, so everything else that surrounded Ilse appeared now in the modest colors of common earthly life. This was natural, and Ilse herself said so to her husband. But there was one thing she did not like: she was separated from her husband more than in the city. The morning and a portion of the afternoon he worked in the museum, and devoted many hours also to his own object among the archives and records of the Marshal's office, whose private offices were willingly opened to him. When he returned home he had sometimes to dress in haste for the Court dinner, and Ilse dined alone. However attentive the servant might be in bringing up the numerous dishes, the lonely meal was uninviting and sad to her. But a great many evenings were spent in a new entertainment: a Court carriage used to stop at the pavilion, and convey her and her husband to the theatre. When for the first time she entered the private boxes near the stage, she rejoiced in the comfortable position, which allowed her to give her attention to the performance undisturbed by the public. When she leant back in her box she saw nothing of the spectators, except the Sovereign's seat opposite. The theatre was very grand, much richer in decorations and costumes than she had seen in the city, and there were some good singers at the opera. Absorbed in the performance, she did not remark with what cu-



riosity she was regarded by the public, and that the Sovereign's opera glass was often directed towards her. She soon found that the theatre was the best amusement of the capital, and her husband took care that she should not miss this recreation, although he, perhaps, would have preferred remaining with his books, or examining a bundle of records from the archives. Between the acts, Ilse looked with curiosity down upon the people, who were all strangers to her, and said to Felix: "This is the only occasion upon which I have ladies near me."

During the day she felt her solitude. Her father had a mercantile friend in the city to whom she made a point of going the first day, but in the family of the little merchant she found no one to suit her. According to the advice of the Chamberlain, she went round with Felix to pay visits to the Court ladies. In most of the houses no one was at home, and she had to leave cards. Rarely were these visits returned; and it always happened that on her return home from the city, or from a walk in the gardens of the castle, she found the cards of some lady. This was annoying to her, for she wished to try how she could get on with the ladies. Some of the gentlemen of the Court, indeed, used to present themselves to her in the morning,—the Chamberlain and the Grand Marshal,—but the visits even of the Chamberlain became shorter; he looked depressed, and spoke of little but the continued indisposition of the Hereditary Prince.

Ilse was very anxious to know the Princess. The second day after her arrival the Chamberlain announced that her Highness would see the Professor and Madame Werner at a certain hour. Ilse stood with her husband amidst the silk and gilding of the royal room; the door flew open, and a young lady in half mourning swept in. Ilse recognized at once that she was the sister of the Hereditary Prince: a delicate refined face, the same eyes, only more lively and brilliant, and an enchanting smile played round the delicate mouth. The Princess bowed her small head gravely, said a few civil words to her, and then turned to Felix, with whom she immediately entered into lively conversation. Ilse observed with admiration the ease of her manner, and the tact with which she could say kind things; she soon discovered what an active mind lay concealed within that lovely form, and that her husband's answers were instantly followed by intelligent remarks on the part of the prudent lady. At the close of the visit the Princess turned again to Ilse, and said how much her brother lamented that his illness deprived him of the pleasure of seeing her. The words and tone were very kind, but there was a pride and princely dignity in the manner which hurt Ilse. When the Professor on their return spoke with warmth of the charming lady, and exclaimed,

"That is an uncommonly bright mind! Like her outward appearance, her inward spirit has a fairy grace about it!" she was silent; she felt that her husband was right, but she also felt that the Princess had excluded her from the footing of intimacy which she had accorded to her Felix.

Being in this state of mind, she was surprised and pleased at one mark of attention which was shown her. Since her interview with the Sovereign the head gardener brought her every morning, at the same hour, a vase of the most beautiful flowers, with the compliments of his Highness. This was not all: a few days after the Sovereign came again, when Ilse was sitting, as before, in front of the door. He asked whether it was not advisable, on account of the slight breeze that had sprung up, to enter the house; she took him into the room; he sat down there, and asked, as if accidentally, whether she was well entertained, and had found any acquaintances in the city. He took so much interest in her that Ilse said to her husband, when he returned home, "How mistaken are the opinions that one forms about strangers! When I came here I thought the Sovereign was a thoroughly reserved man, but I find him very friendly, and he seems quite a good family man too; but with such a large household it may frequently be necessary to be strict."

The Sovereign's short visit was repeated. The next time he found the Professor with his wife. On this occasion he was more serious than before.

"How were you satisfied with the Hereditary Prince?" he asked the Professor.

"Those who instructed him praised his industry; among the students he gained popularity, and there was general regret at parting from him."

The Sovereign remarked the word popularity.

"How did the Prince contrive to gain this?"

"He showed an upright character and decided will, and one felt confidence in him."

The Sovereign gave a searching look at the Professor, and perceived from his calm manner that this was not empty civility.

"The attachment of the students showed itself on the departure of the young Prince by a festive serenade," interposed Ilse.

"I know," replied the Sovereign. "I assumed that Weidegg by his endeavors contrived to have this done."

"It was of their own free will, and showed their warm feeling," added the Professor.

The Sovereign remained silent.

"He won the hearts of the ladies also," continued Ilse, "and we lamented his Highness's absence from our tea-parties."

(To be continued.)



## BOOK REVIEWS.

THE HOME OF SHAKESPEARE. Boston: 1888. Louis Prang & Co. Christmas Edition. \$3.00.

A volume of charming illustrations representing the scenes of Shakespeare's life. Each illustration is accompanied by an extract from the poet's writings, fitly describing the scenes represented. The contents include the Poet's Home, the Grammar School, the West Gate, Guy's Mill, Warwick Castle, Kenilworth Castle, the West Tower, the Old Mill, the Bridge, Anne Hathaway's Cottage, the Weir's Walk, Holy Trinity Church, the Avenue, the Tomb, and other scenes of the Stratford-on-Avon and its surroundings. To every lover of Shakespeare it will be a most fitting Christmas gift.

BABY'S LULLABY BOOK. *Mother Songs*. Boston: 1888. Louis Prang & Co. Christmas Edition. \$7.50.

With hearts of song or sorrow,  
Cloud-hid or shining sky,  
To-day, and, yea, to-morrow,  
You'll sing the lullaby—

are the opening lines to this handsome and elaborate work of art. "Cloud-hid or shining sky," through every phase of joy or sorrow in life, the love and womanly care of generations have woven a web of ideal happiness about the life of infancy. The tender associations of baby-life are the poetry of the world of mothers. Many a jewel of thought, of sentiment, and of life-experience, has been lost in the multitude of joys and sorrows peopling this epoch of life, yet many have found a lasting place in the realms of rhythm, music, and color. Babies have gained a citizenship in literature, and Messrs. Prang & Co. are to be congratulated for their happy contribution to the treasure-store of mother-songs.

The poems by Charles Stuart Pratt, twelve in number, have been set to music by Mr. T. W. Chadwick. Accompanying the songs are full-page illustrations by W. L. Taylor. The colors are soft and delicate; the pages are set in frames of solid tint. The cover is of surah sateen with fine and attractive designs. In all, a beautiful Christmas present.

ESSAYS IN CRITICISM. Second Series. *Matthew Arnold*. London: 1888. MacMillan & Co. Chicago: A. C. McClurg & Co. \$1.50.

The collection of essays contained in this volume was made by the late Mr. Arnold himself. A further recognition of their worth than the approval of the author, who was as severe in his estimate of his own productions as he was clear and unbiased in the criticism of others, no one could demand. Unlike the majority of his contemporaries, who endeavor, in the treatment of every subject, to cover the whole province of human opinion, Mr. Arnold was content to say one thing at a time. The perusal of an essay of his is certain to leave an idea, an impression. It has been objected to him that the invariable repetitions in which he indulged grew to tiresomeness. But the objection has arisen from the dearth of other noticeable defects. No method, in the hands of a skillful author, is better fitted to fix the ideas of a reader and to preserve the unity of critical treatment. In this simplicity of method, Matthew Arnold became a teacher of men. The collection before us illustrates this power. The essays are respectively upon the following subjects: "The Study of Poetry," "Milton," "Thomas Gray,"

"John Keats," "Wordsworth," "Byron," "Shelley," "Count Leo Tolstoi," "Amiel." Precision, unity, and purpose, mark them all. The unbiased American reader will appreciate many remarks upon the character and tendencies of Anglo-Saxon institutions,—remarks akin in spirit to the animadversions recently made in the essay upon "Civilization in America."

muon.

GREAT FRENCH WRITERS, MONTESQUIEU. By *Albert Sorel*, VICTOR COUSIN. By *Jules Simon*. Translated by Melville B. Anderson and Edward Playfair Anderson. Chicago: A. C. McClurg & Co.

The above form the third and fourth volumes in a series of unusual interest and merit, which has before received notice in these columns. M. Sorel gives us a very instructive study of Montesquieu, combining a just and sympathetic account of the man with a critical analysis of his works, giving most space, naturally, to *L'Esprit des Loix*. This word "spirit," the author tells us, did not belong to him alone, but had been used by another celebrated French writer, Domat, in his "Treatise on the Laws"; Montesquieu's use of the term was to show reason for the existence and efficacy of the law, which made his problem an historical one. The author writes at some length on the subject of Montesquieu's style, who was as much artist as thinker, "who desired perfect order in his book, but an order which steals into the reader's mind without imposing a burden on his attention." It was this attention to the form of his work, doubtless, that has given us so many maxims. The three most popular writers in France when the revolution broke out were Voltaire, Rousseau, and Montesquieu; among them Montesquieu furnished to the ardent disciples of liberty and a new social order the most quotations, all parties drawing from his great work maxims and precedents to support their wishes and claims."

In the study of Victor Cousin we come nearer our own time by almost a hundred years. The revolution is past, but its results not wholly established as yet, when the striking figure of Cousin appears in the arena of French philosophic ideas and discourse. The story of the brilliant popular success which the author of the Eclectic Philosophy attained almost at a bound in his lectures at the Sorbonne as the successor of Royer-Collard, has always read like a romance and is heightened in interest by M. Simon's account of the popular teacher's early life. Cousin was one of the first among the French to appreciate the depth of his countrymen's ignorance of German philosophy, an ignorance which he shared, though he had the merit to try at once to correct it. He was the friend and disciple of Hegel, but he was himself more of a rhetorician than a philosopher, a brilliant but not profound expounder of other men's systems rather than the originator of one of his own. C. P. W.

## NOTES.

We learn that Mr. Edmund Collins, retiring from *The Epoch* to take charge of Leng's Literary Syndicate, is succeeded as literary editor by Mr. L. J. Vance, already a regular contributor to that journal as well as to *THE OPEN COURT*, and an occasional contributor to *The Critic*. Mr. Vance's father, John Vance, was for many years one of the editors of *The Sun*, when the paper was owned by Moses S. and Moses Y. Beach.

## ★ RECENT CONTRIBUTIONS TO "THE OPEN COURT." ★

## PROF. WILLIAM D. GUNNING.

A Memorial Address by Frederic May Holland. . . . In No. 61.

Prof. William D. Gunning died at Greeley, Col., on the 8th of March, 1888. His active and exemplary career of sixty years was devoted to the advancement of scientific thought, and marked by an uncompromising loyalty to truth. The memorial address, by Mr. Frederic May Holland, is a just and fitting tribute to a noble life.

## THE ETHICAL BASIS OF CHARITY.

W. ALEXANDER JOHNSON.

The Editor of *The Reporter*, an organ of Organized Charity, Chicago, speaks not only from experience but takes the scientific aspect of this most vital problem. The basis of Charity must not be sought for in the surtenance of a pauper class who would not exist but for charity. The basis of Charity must be sought for in ourselves and our ethical nature. To this truth the principles and methods of doing the work of Charity must conform.

## THE QUESTION OF IMMORTALITY

Is treated in the Editorial of No. 25, "Evolution and Immortality." It is shown that Immortality according to the Monistic view is immanent; it is a continuance of ourselves in our children, in our ideas and in the work we have done during life. Rudolf Weyler in his essay, "THE PUNISHMENT OF DEATH," in No. 24, speaks of death as a mere transition and C. Billups in a letter of No. 23 criticizes the wrong notion of a transcendent immortality as taught by Dualism.



## LEE AND SHEPARD'S NEW PUBLICATIONS.

## A WESTERN BEAUTY.

**DAYS SERENE.** Original illustrations by MARGARET MACDONALD FULLMAN. Engraved on wood by George T. Andrew, and printed under his direction. Royal oblong quarto. Emblematic cover. Twenty-six full-page, original illustrations. Full gilt. Size, 10 1/2 x 14 1/2. Cloth, \$3.00; Turkey morocco, \$12.50; tree-calf, \$12.50; English-seal style, \$9.00.

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Something new, attractive, and decidedly original.

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By DINAH MARIA MULOCK, author of "John Hall-fax." Illustrated by J. Pauline Sinter. Printed on heavy board in sepia tint and gold, gilt edges, ribboned and boxed, \$1.00.

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No. 69. Vol. II.—43.

CHICAGO, DECEMBER 20, 1888.

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## YULE-TIDE AND CHRISTMAS.

Christmas comes again with its Christmas trees and lights, its Christmas gifts and joys. The festive Yule-tide has been a holy season to our Teutonic ancestors since they came from Asia and settled in their northern homes in Europe, which their descendants, the Norwegians, the Danes, the Dutch, the English, and the Germans still inhabit. The dreariest days of the year, when darkness and frost with snow and ice were most oppressive, became by reaction as it were the most joyful time.

In the northern parts of Norway the sun disappeared entirely towards the close of December, and when after an absence of two nights or more it rose for a short time on the horizon, it was saluted with bonfires lit with yule-logs, with festive processions, with fir-trees illuminated with candles, with merry-making and family feasts of all kinds.

The mistletoe which grows on holy oak-trees and remains green in winter-time, whose seed was supposed to have fallen from heaven, was the sun-god Baldur's sacred plant. With mistletoe therefore the houses were decorated, and the greeting under the mistletoe was all love and friendship in the name of Odin's fairest and most righteous son. Baldur had been killed by the dark and gloomy Hoedir, but he was restored to life again. With Baldur all nature received new life, and all mankind rejoiced in him.

When Christianity was introduced, how could a better day for the celebration of Christ's nativity be selected than Baldur's festive day. The birthday of Jesus was not celebrated in the early church, and there is not even the faintest legendary account regarding its date. Our Teutonic ancestors succeeded in settling this problem in favor of their dear Yule-tide by a quotation from the scriptures. John the Baptist says as to his relation to Christ: "He must increase but I must decrease." (John iii. 30.) Accordingly, St. John's day was fixed upon the 24th of June when the days begin to decrease, and Christ's upon 25th of December when the days begin to increase again.

Yule-tide lost none of its charms when it was changed into Christmas. On the contrary, the sacred joys of *Weihnacht* gained in spiritual depth and importance, preserving all the while the old pagan ceremonies that symbolize the immortality of light and life.

Christmas is not a feast of any special creed. It had been celebrated as the pagan Yule-tide long before Christianity existed. The custom of celebrating it has spread from the Teutonic nations to France, and Spain, and Italy, and Ireland, and over the whole world. It is now the family feast of almost all mankind whether they believe in Jesus as their savior or not.

We keep the Christmas season as a dear and sacred time which in the midst of a dreary winter night reminds us of the sun's return. Darkness cannot conquer light, and death cannot conquer life. Christmas teaches us to bear up bravely in troubles, to keep up hope in misfortunes, to preserve the courage of life in the midst of struggles of cares and worries, and to spread joy around us so far as it is in our power. P. C.

## BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M.D.

Part XI<sup>III</sup>.

### HEALTH AND DISEASE. (Continued.)

But while the moral characteristics of perfect health can often be studied only in the traditions of the past, our own age affords abundant facilities for the study of moral pathology. The most frequent psychic symptoms of impaired health are capriciousness and irritability. Despondency is by no means an invariable concomitant of disease. The brooding stupor of wounded savages often alternates with fits of bravado and reckless mirth, or even of facetious good humor, as in the remark of Sultan Baber's son, Mahmet, who in his exile had ventured to intrigue with the lady-love of a Tartar chieftain, and after being starved beyond the hope of recovery, was deprived of his eyes by order of the implacable emir. "I don't see what he wanted to blind me for," said the dying exile, "unless he was afraid that my good looks might interfere with the success of his amours in paradise."

Snorri Sturleson, in his *Heimskringla*, mentions the still stranger last words of a Norse warrior, whose breast-shield was pierced by an arrow, which could be extracted only by a series of desperate efforts, and at last proved to have torn out a piece of the wounded man's heart. "That's all right," grunted the expiring Baresark, after scrutinizing that sample of his interior

\* Copyrighted.



organism, "it's time I should be butchered anyhow, I'm getting fat to my very heart's root."

Fortitude of that sort, though, is inspired only by a strenuous concentration of mental energy, and no amount of habitual self-control is apt to resist the influence of lingering disease. Stoicism, indeed, requires a basis of physical stamina, and hospital experts cannot help confessing a good deal of skepticism concerning the alleged miracles of sickness-proof cheerfulness.

Chronic ill-humor is a product of effete civilization far oftener than of savage modes of life, and the traveler Kohl mentions the suggestive experience of a dragoon whose linguistic attainments had secured him the patronage of Syrian and Circassian chieftains, as well as of refined European travelers. "You must have come across perfect barbarians among those eastern customers of yours," said the professor, "and I suppose it's rather hard sometimes to put up with their bullying insolence?" "Well, yes," said the interpreter, "but I can tell you frankly that I could get along for a year with a Kurdistan robber-chief, more easily than for a week with a sick-tempered English aristocrat. Travelers of that sort may never use a coarse expression, and yet torment you with their meanness and their venomous tantrums (*'giftige Launen'*) till you would give a year's wages to have the privilege of thrashing them black and blue. They seem to be always trying to find fault, just for the sake of venting their bad humor; and the saints forgive me if the *lady-likest* women amongst them are not a dozen times worse than the men." Domestic servants cannot risk such comments, except, perhaps, under the circumstances which induced an American boarding-house keeper to profess religion and invite the prayers of her colored cook. "Just think of it, Dinah," she moaned, "I have been a sinner all my life, and I never knew it till yesterday." "Pshaw, madam," said Dinah, "I knew that all the time."

"Misery loves company," is a proverb that expresses one main cause of the irritable and almost vindictive humor accompanying many forms of physical complaints. The sufferer would seem to find a sort of solace in the success of his efforts to make others share his feeling of wretchedness, while on the other hand happiness dislikes the discord of distress and would wish to propitiate envy by making others equally happy—an impulse perhaps connected with the significance of the ancient belief that fortune's favorites must avert a change of luck by forgiving their enemies. "*Evasisti*" (you have escaped your fate), said the Emperor Trajan, on the day of his election, at sight of a man who had provoked him to a vow of mortal vengeance.

Tortured animals almost invariably become vindictive; a strychnine-poisoned wolf, in his last agony,

will snap savagely at his sympathizing friends who surround him with looks of surprise, and during the conflagration of a menagerie I once saw a badly scorched Moor baboon make a mad assault upon a helpless dog, who had for years shared the straw couch of his prison. Even sick horses are apt to use their teeth upon a companion whose sleek appearance aggravates their feeling of misery.

The disorders of the human organism betray an analogous tendency, and the apparent exceptions from that rule refer almost exclusively to *painless diseases*, such as certain affections of the respiratory organs, which in all but the last stage of the malady, evince their progress only in a feeling of general exhaustion. A two hours attack of gout or neuralgia, on the other hand, will sour the sweetest temper, and the sufferers from chronic bowel-complaints and bone cancers often become so fearfully peevish that none but well-paid attendants can be induced to endure their caprices. "Do, kill me at once," said a hospital steward of my acquaintance, "if a trouble of that sort ever should happen to get hold of me; I would rather be dead than be tempted to act like that snappish old demon over yonder."

It is a curious fact that a confident hope of recovery forms a distinctive symptom of certain fatal diseases. While dyspeptics, for instance, torment themselves with all the morbid fancies of Molière's *Malade imaginaire*, consumptives are very apt to underestimate their peril, and persist in explaining away the unmistakable symptoms of hopeless decline. In the last stage of their disorder that optimism, however, frequently collapses into the opposite extreme, and during the last few months of their struggle for existence the victims of pulmonary diseases often become fretful enough to make life a burden to their attendants, as well as to themselves.

"Have you ever known a patient to persevere his good humor to the end of a lingering disease?" I once asked an intelligent sick-nurse, who had for long years acted as chief matron of a large city hospital.

"Some of them hold out, by sheer will force, a good deal longer than others," said she, "but it seems to aggravate their misery, and, in fact, I have sometimes helped them to ease their melancholy by letting them growl away to their heart's content. Most of them, though, do not ask your permission, and they all break down sooner or later, women sooner than men as a rule, though I remember one case of a poor creature who had been hurt by a fall on her head, and was treated for cataleptic fits. She would get delirious and then lie as in a trance for days together, but in her lucid intervals she tried her best to make herself pleasant to everybody, poor soul, and seemed really to have a marvelous fund of good humor, unless she



was doing herself violence for fear of being sent to an insane asylum. Education is no guarantee at all against the absurdest fits of peevishness, and, indeed, I have often found that intelligent persons in such cases use their mental resources only for the purpose of making themselves more *ingeniously disagreeable* to nurses and doctors. A strong sense of justice is no safeguard either; I have known men of strict principles and a high sense of honor to get as unreasonably fretful as any hysteric woman. Their principles seem to slip away in such cases together with their physical hold on life, though it sometimes almost looks as if they thought it no more than fair that other people should be worried at least once in a while, while they themselves are in such constant misery."

The Mohammedan sect of the Sufis seek to establish communion with the spirit of the godhead by purging their minds of all worldly passion, and often renounce their earthly possession for the special purpose of avoiding the temptations of wealth and devoting themselves more exclusively to a life of spiritual meditations. The great mistake of the Christian ascetics consisted in the hope of enforcing that quietism by a system of health-destroying penances. There is a tradition of a Brahmin fanatic who dug out his own eyeballs, filled his ears with pitch, destroyed the nerves of his palate by the application of hot irons and at last lay down, "freed from the lusts of life and blunted to a sense of its evils," awaiting his final release in callous torpor. That utter suppression of vital instincts may have answered its purpose nearly as well as outright suicide, but as long as eyes see and nerves feel, persistent sin against the protest of their instinct is sure to avenge itself by all sorts of moral and mental, as well as physical, disorders. The self-torturing maniacs of the mediæval monasteries had to pay that full penalty of their crimes against nature, and instead of gaining the hoped for "peace of life-renouncing devotion," only succeeded in perverting the passions they attempted to suppress. There is, indeed, no doubt that morally and intellectually the victims of monachism degraded human nature far below the types of primitive savagery, and that the immoralities and cruelties of the culminating period of that millennium of madness are as unparalleled as the extravagance of its superstitions. "I would endure the rough justice of a penal prison rather than the petty chicanes of a French convent," writes a correspondent of Père Hyacinth; "of all the exasperating, spiteful, and low-minded tyrants on earth, a caprutulent abbot, in the exercise of his power for aggravating the miseries of a miserable existence, is decidedly the worst."

The testimony of thousands of refugee monks and nuns has confirmed that verdict, and there is no

greater mistake than the mediæval belief in the possibility of freeing men from their vices by depriving them of their health. It would, indeed, be difficult to name a single moral or mental aberration which in some of its forms does not constitute a symptom of impaired physical health. Suffering undermines the basis of common sense and common justice; principles of rectitude "slip away" with their physical concomitants; the purely physical misery of alcoholism will tempt its victims to purchase relief by any sacrifice of personal honor. "Sensual excesses," says Ludwig Boerne, "are the consequence, as often as the cause, of disease," and it is equally true that nervous disorders may engender a love of cruelty for its own sake. An ultra-brutal delight in the infliction of pain is a well-known symptom of certain brain-diseases, and few pathologists would be inclined to doubt that moral aberrations such as those of Phalaris, Nero, Caligula, Pedro of Aragon, Czar Iwan, and Chevalier Retz, must be considered a consequence of physical disorders.

The physiological *rationale* of such consequences, must, however, often remain a matter of mere conjecture. We may trace the fretfulness of dyspeptics to the intimate connection of the brain with the gastric branch of nerves, but no anatomist could venture to explain the curious, and yet undisputable, fact that blind men are nearly always remarkably trustful, even under circumstances not apt to justify a confiding disposition, while deaf and dumb persons, with as rare exceptions, are extremely cautious and very prompt to resent an abuse of their confidence. Nor would it be easy to explain the morbid activity which often characterizes the delirium of nervous disorders, as if its victims were stimulated by the desire of utilizing their last scant resources of vital strength, while consumptives, with all their optimism, are apt to become morbidly averse to every kind of mental or physical effort

(To be continued.)

#### FORM AND FORMAL THOUGHT.

##### IV.

#### THE BASIS OF THE ECONOMY OF THOUGHT.

Mathematics, as still taught in our schools, is, after the example of Euclid, unfortunately constructed on axioms. The introduction of axioms still gives to mathematics an air of mysteriousness which should be absent in this most reliable and well established science. This doctrinal method of teaching mathematics, by starting from authoritative axioms, which have to be accepted on good faith, is unphilosophical and should give place to a more rational method. It induced Schopenhauer to declare that the whole science, being based upon non-proven truths, remains non-proven. He considers mathematical certainty to be ultimately a part of intuition and thus reaches a point where mysticism can have full play.



Hermann Grassmann in his "theory of extension" (*Ausdehnungslehre*) avoids the faults of Euclid's method. Grassmann throws a new light upon Kant's idea of the a priori by formulating a science of pure mathematics. Our space has three dimensions (*Ausdehnungen*, or extensions), and plane geometry is a mathematics of two dimensions. Grassmann's idea was, to propound mathematics as it would appear if absolutely abstracted from dimensions of any number. This science of pure mathematics must be the most abstract formal thought.\*

The "theory of forms in general" (*Allgemeine Formellehre*), Grassmann says, should precede all the special branches of mathematics. By a theory of forms in general he understands "that series of truths which refers equally to all branches of mathematics and which presupposes only the general concepts of identity and difference, of combination and separation. \* \* Products of thought can originate in two ways, either by a simple creative act (that of positing) or by the double act of positing and combining. The product of the former kind is a constant form or magnitude in a narrower sense, that of the latter kind is a discrete form or a form of combination."

On the concepts of the identity and difference of posited acts of thought by mere combination and separation, Grassmann builds his magnificent structure of a theory of forms in general, of which arithmetic, geometry, algebra, mechanics, phoronomics, and logic appear to be applications only of special kinds. He is in need of no axioms whatever. The only postulates are such as these: Arithmetic is a system of first degree; plane geometry is a system of second degree; and space is a system of third degree. Plane geometry has two dimensions, and, therefore, if we have one point fixed, two magnitudes are required for the determination of any other point. Space has three dimensions, so that taking a fixed point three magnitudes are necessary for the determining of any other point. Colors, it appears, are another system of third degree; they can be reduced to three primary colors: red, orange, and blue. Accordingly three magnitudes are required for determining any kind of tint. A distinguished scientist has invented a method of graphic representation of colors by triangles.

\*The ingenious attempts of Bolyai and the Russian geometer Lobatschewsky (discussed in C. F. Gauss's "Briefwechsel mit Schumacher," Vol. II, pp. 268 to 271), to erect a geometrical system which would be independent of the Euclidean axioms in regard to parallels, and Riemann's meritorious essay "On The Hypotheses Of Geometry," have called the attention of mathematicians and scientists to a remarkable problem which finds its natural and most simple solution in Grassmann's theory of pure mathematics. Hamilton's method of Quaternions is contained in it also, since Grassmann takes into account the length and direction of lines. For brief information on the subject see Helmholtz's lucid sketch *Ueber die Thatsache, die der Geometrie an Grunde liegen* (Upon the Facts that lie at the Basis of Geometry), J. B. Stallo, "The Concepts and Theories of Modern Physics," pp. 208 seqq., and 218 seqq., and compare also with Hermann Grassmann: *Ausdehnungslehre, Anhang I.* and III. pp. 273 seqq., and 277 seqq.

We cannot have any intuitive conception of a space having four dimensions. Nevertheless, pure mathematics, being independent of dimensions, applies just as much to systems of four and more degrees as to the actual space of three dimensions. The regularity of every system is fixed a priori by the elements posited for that system. The elements, positing themselves or being posited by us according to the rigid rule of strict consistency, will necessarily form a regular and orderly arranged system. We can therefore state with absolute precision all the formal laws by which bodies of four or five dimensions, if they existed, would be governed.\*

The chief difference between the numbers of arithmetic, geometrical planes, mathematical space, on the one hand, and Grassmann's systems of 1, 2, 3, or  $n$  dimensions on the other, is, that numbers, planes, and actual space are accepted as given; they are the data of arithmetic, geometry, and mathematics, while the systems constructed by Grassmann's "theory of forms in general" are conceived as products of thought. They are posited by a progress of thought and can be considered as data only if their parts, once posited, are further used as such for combinations among themselves.

It is obvious that the only condition of all kinds of such systems of formal thought is *consistency*. Truth with regard to our knowledge of reality is the agreement of our concepts with the objects represented; but truth in the domain of pure formal thought is the agreement of all posited forms of one and the same system among each other. This consistency is the

\*As an example we may use the instance, that the product of two magnitudes in a system of second degree can be algebraically expressed by

$$(a + b)^2 = a^2 + 2ab + b^2,$$

in a system of third degree, by

$$(a + b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

in a system of fourth degree, by

$$(a + b)^4 = a^4 + 4a^3b + 6a^2b^2 + 4ab^3 + b^4.$$

Accordingly, a cube or any parallelepipedon which is the product of two magnitudes consists of eight tri-dimensional parts. This fact cannot only be proven a priori by mathematical or algebraical demonstration of purely formal thought, it can be ascertained by experience also. A cube that is cut in all its three dimensions, according to the ratio of  $a + b$ , will afford an example, and a body formed by two magnitudes  $(a + b)$  in four dimensions, if it were possible, would consist of the following 16 four-dimensional parts:

1. A regular body which in all four directions measures  $a$  ( $= a^4$ ).
2. Another regular body which in all four directions measures  $b$  ( $= b^4$ ).
3. Four bodies which in three dimensions measure  $a$  ( $= a^3$ ), and in one  $b$ .
4. Four bodies which in three dimensions measure  $b$  ( $= b^3$ ), and in one  $a$ .
- 5) Six bodies which in two dimensions measure  $a$  ( $= a^2$ ), and in two  $b$  ( $= b^2$ ).



basis of all law, regularity, and order; and whatever system of forms may be selected, its rules and theorems will be developed by our mind with the same wonderful harmony and precision as can be observed in mathematics, arithmetic, logic, and mechanics. Accordingly, if the world were otherwise than it is, if space had only two, or if it had four dimensions, the laws of the world would be otherwise, but none the less regular than at present—they would be strictly *gesetzmässig*, i. e., conforming to, and explainable by, law.

Consistency must be considered in the empire of form as the counterpart of inertia\* in the realm of matter. So long as nothing interferes to produce a change, everything will remain as it is. Consistency therefore, the very root of order, from which all order of form in every possible system of forms finds its explanation, is the natural state. Consistency like the law of inertia and the law of identity explains itself. Wherever we meet with it, it need not be accounted for; an explanation becomes necessary only where consistency is lacking. From this consideration it is apparent that to whatever system the form of reality belonged, it could in no case be devoid of order. The world could not be a chaos, but of necessity must be a cosmos.

Grassmann's theory of 'forms in general' throws a new light upon Kant's doctrine of the *a priori*, since it exhibits a science of pure form in its most generalized abstractness. Thus the *a priori* has lost the last vestige of mystery and we can easily understand how the cosmical order is due to the formal laws of nature. While Kant's reasoning has been correct in the main, it is apparent that real space is not quite so purely formal as he imagined. A system of form of the third degree can be posited *a priori* by formal thought; but the fact that real space is such a system of the third degree can be ascertained by experience only.

We have used the word order in the sense of objective regularity which of necessity results from a consistency of form throughout one and the same system. This regularity of forms enables us to think many samenesses by one idea and thus makes an economy of thought possible, which as Ernst Mach declares is the characteristic feature of science. Ernst Mach (who I must suppose has attained to his ideas quite independently of Grassmann, although there is no doubt that both have been strongly influenced by Kant), points out, by a happy instinct as it were, the most practical application of the theory of formal thought in general.

The regularity of form being repeated in the physiological arrangement of the nervous cells and fibres

in our brain, produces in man an economy of feeling and thinking which the more it is realized and practiced, gives him the greater power over nature.

## V.

## CONCLUSION.

Although Kant's Transcendental Idealism cannot be considered as a final solution of the basic problem of philosophy, it nevertheless pursues the right method and has thus actually led us to a solution which, we hope, will in time be recognized as final. In Kant's time, it seemed as if the key to the mysteries of cosmic order should be sought for in nature's manifestations outside of the human mind. Kant, a second Copernicus, reversed the whole situation and pointed out that the key to the problem: "How is nature possible at all?" is to be found in the human mind. And yet the natural sciences, inquiring into the secrets of nature by the observation of natural phenomena, were after all not on a wrong track. Kant and the natural sciences seemed to exclude each other, but they were complementary. Schiller who in so many respects fore-told and fore-told future events in the prophetic spirit of his poetry, said in one of his Xenions, inscribed "Transcendental Philosophy and Natural Science":

"Both have to travel their ways, though the one should not know of the other.  
Each one must wander on straight, and in the end they will meet."

Two truths may at first appear contradictory, though they are not. Let us not distort the one for the sake of the other, but let each be presented without regard to the other, and let every point of divergence be brought out fully. Theory and practice, formal thought and experience, the thinker and observer, will at last agree better if they boldly take the consequences of their views and combat those of the other. About the relation of transcendental philosophy to natural science in his time, Schiller said:

"Enmity be between both, your alliance would not be in time yet.  
Though you may separate now, Truth will be found by your search."

There has been enmity enough between philosophy and natural science. Philosophers looked with scorn upon the specialists who confined their labors to narrow circles, and scientists, confident of their positive results, smiled about the phantastic dreams of theoretic speculations. However, in the progress of time, philosophers learned to prize the valuable researches of natural science, and the scientists felt the necessity of a philosophical basis for their investigations and methods of investigation. At present the want of a close contest between philosophy and the sciences is a fact that is freely acknowledged by both, philosophers and scientists.

In Kant's and in Schiller's time an alliance between philosophy and natural science would have been premature. How many futile attempts have been made

\*Inertia in German is sometimes called *Trägheit*, sometimes *Beharrung*. *Trägheit* is the literal translation of inertia; it is a negative term which denotes the non-appearance of new energy, or motion, or activity. *Beharrung* is the better term; it affords a positive expression for "inertia," denoting the unchanged continuance of the energy in existence.



in the mean time! Fichte, Schelling, Hegel, and Schopenhauer in Germany, the two Mills and Herbert Spencer in England, Auguste Comte in France, have appeared with their systems, partly opposing, partly repeating Kantian ideas in other and original ways of presentation, partly combating his very method, partly popularizing, and at the same time opposing his views. But none of them (not even Comte\*) succeeded in creating a well-established positivism that could dispense with the mystical element altogether, whether it appear as the Transcendental, the Unknowable, or the Supernatural.

We have attempted in these essays on "Form and Formal Thought" to lay the cornerstone of such positivism, which, it is to be hoped, will prove to be the only true Monism, *i. e.*, a philosophy free from contradictions and in accordance with reality, thus offering a basis for a unitary and harmonious conception of the world.

P. C.

### THE ATTACK ON ROBERT ELSMERE.

BY WM. M. SALTER.

The attack of the pulpit on *Robert Elsmere* is almost as significant as the book itself.† The attempt is made to depreciate the book. It is not a great work, we are told, and it is Mr. Gladstone who has given it publicity—though where Mr. Gladstone's labored review has been read by tens, it is safe to say, that the novel has been read by hundreds or thousands. It is called, "a passing pamphlet advocating a transitory theological whim." How strange that other pamphlets advocating "transitory theological whims" have almost no readers! Its sinister purpose is pointed out; it is "a subtle, powerful, perilous attack," "an attempt to discredit the old, old story," it aims "to undermine faith in the testimony by which the New Testament miracles are supported." But cannot an artist relate a wonderful and yet not uncommon spiritual experience without a polemical motive? When George Eliot gave the world her beautiful picture of Dinah, was she an advocate of Methodism? Yet, even if Mrs. Ward's motive was priggish, to hold up a model for her readers, there is not in the whole of *Elsmere's* career one trace of hostility to Christianity, nor could one learn from him any other desire than to retain as much of Christianity as it is intellectually possible to retain. Objection is made that the author does not present the argument for the divinity of Christ, the reality of the resurrection and miracles; but why should she, when she makes no pretense of writing a controversial treatise—and when, it might be added, the argument is already so well-known?

As the book is misinterpreted, so is *Elsmere* himself belittled. His early belief is called a "feeble product of religious emotions"; nor did he find himself compelled to abandon it as the result of the gradual processes of his own thinking, but the Squire "demolished" it; his mind, we are told, had pinned "itself on to Squire Wendover"; he made a good fight for his wife, but scarcely any for his religion. The charges even descend, I am ashamed to say it, to vulgarity.

\* Except for the living in it, one cannot conceive of Robert Elsmere going into the ministry," one minister remarks; he speaks of

\* Comte believed in the Unknowability of what he called "first and final causes," and considered only "the middle between them" accessible to cognition. He attempted to limit science to the positively knowable, but in so doing he left a non-knowable; he did not succeed in entirely freeing himself from mysticism—which after all is the primary object of all philosophy.

† I refer to the sermons of two distinguished representatives of the Chicago pulpit—one a Congregationalist, the other a Presbyterian—reported in the Chicago morning papers of the 22d and 29th of October, 1888.

Robert's "theatrical struggle," and says, with unction, "Christ came to save sinners and not to provide refined entertainment for such men as Elsmere." I ask any one who has read the book whether this is a true picture of *Elsmere*, whether for one moment he can be thought of as a dilettante? Yes, *Elsmere's* struggle is made ridiculous. He made, it is said, tremendous effort to give up something he never possessed; a minister of the Christian religion, he never knew what it was to be a Christian. What is meant by this? Simply that he never knew Evangelical Christianity,—and Evangelical Christianity by a well-nigh inconceivable narrowness is represented to be the only type of Christianity which there is any great significance in breaking with. Because Mr. Moody's Christianity, and Mr. Spurgeon's, and that of the Armour mission is not taken as the type of that which *Elsmere* unlearned, therefore the latter is of slight account. Moody, we are told, could not have been stirred by the arguments which wrecked *Elsmere*. I grant it. Moody stands like a rock whom modern ideas beat upon in vain. In answer to those who say to him, "You don't believe the story of Noah and the flood!" he answers "I believe it as implicitly as I do the Sermon on the Mount." To those who bring up Jonah and the whale, "Oh, yes!" he replies; "I believe that just as much as I believe the resurrection of Jesus Christ,"—and to those who urge that a whale cannot swallow a man because its throat isn't large enough, he answers all undismayed that God could attend to that difficulty, that He would have no trouble in making a fish large enough to swallow Jonah. I do not quote these words of Mr. Moody's to discredit him. Rather do I find something refreshing in his imperturbable manner—and that he loves his fellowmen and with his whole heart tries to help them, I make no doubt. But would we have had Mrs. Ward take his type of Christianity as the type from which *Elsmere* should fall away—or, what is perhaps about the same, Mr. Spurgeon's or that of the Armour mission? In all candor I ask, Would such a type have had sufficient intellectual significance? Would profoundly thinking men and women, would students and scholars, would the lights of our Chicago pulpit themselves have cared to read the book framed on such a basis?

It should perhaps be remembered that the book was not written in Chicago, but in England, and that the most commanding religious faith there, and the ripest culture, are not in Presbyterianism or the Baptist persuasion, or in mission chapels, but in the old historic church of England. If Mrs. Ward had taken her hero from one of the Evangelical sects, or from what is known as the Evangelical party in the church of England, would not large numbers of people have said over there, and not a few here, "Ah, but she did not give us a specimen of the highest and most attractive Christianity to begin with, and what we should like most to know is, how a broad and cultivated and genial believer like Kingsley or Maurice could have been led to give up his faith?"

It is charged that no genial representative of modern orthodoxy is to be found in the book; but *Elsmere* himself is such a representative, so far as a young man can be. Neither a High-churchman nor a Low, he yet conceived of the English church as a great national institution for the promotion of God's work on earth, and none, we are told by the author, who came near to him could mistake the fervor and passion of his Christian feeling. With "prayer and self-abasement" he vowed himself to the ministry of the church. At Oxford he came into contact with skepticism, both on its philosophical and on its historical side; he became presumably familiar with the works of Mill and Herbert Spencer, and failed to be satisfied with them, like other ardent young men in Oxford at that time. Though one of our ministers says he had no thorough or even respectable training in the evidences of Christianity, he doubtless had what Oxford afforded—and it is not improbable that that ancient and honorable institution of learning afforded as much as could be found anywhere else in Europe, unless it be at Leipzig or Berlin; yes, we are expressly told that he was familiar with apolo-



getic arguments and used them with ability and ingenuity, and that in reply to Langham, who urged that Christianity was simply made up of ideas personified, he declared with warmth that the ideas had been realized, made manifest in facts. Without being a philosopher or profoundly original in any direction, yet open-minded, noble-hearted, deeply in earnest, he was, on leaving Oxford and taking up his country living, a fair representative of the best tendencies, the broadest culture, the finest and purest temper in the English church. The very interest and power of the book, yes, the fatal charm about it so much regretted by our ministers, is that a specimen of the noblest and manliest Christianity of our era is taken for its hero, and that just such an one as he is involved in the ensuing tragic experiences.

The clergymen who have attacked Elsmere do not really understand him, do not appreciate the real meaning of his experience. We understand what we are, some one has said—what we have gone through in our own soul. Christian ministers often apply this truth to those who make heartless and frivolous attacks on Christianity. It does not seem to occur to some of them that it may be necessary to apply it to themselves in their judgments on so delicately-strung a nature as Elsmere's. Have they ever been in his place? True, one of our ministers says that Elsmere's experiences have been those of almost every man of note in the American pulpit to-day, at some period or other of his career; but he surely, and his brother-minister, who has made a somewhat similar though less offensive, attack, are among those men of note, and since they are young, would more likely have known something of Elsmere's experience than older men, and yet they give no signs of ever having passed through it.

The doubt that assailed Elsmere was of a peculiar character, and he met it in a peculiar way. It was not of his own will that he doubted. He had no wish to disbelieve. All his wishes were to believe. All his emotions were on the side of Christianity. His faith was a part of his whole make-up as a man. "It isn't as if we differed slightly," he said to the Squire in the early part of his acquaintance with him; "we differ fundamentally, is it not so? I am a Christian, I believe in an Incarnation, a Resurrection, and Revelation." When his doubts came, they were totally unlike those of Voltaire, or Paine, or of many popular liberal lecturers, whose doubts seem, in a measure, part of their *animus* against the church. Nor did his mental unrest come from abstract arguments. Our ministers argue against him that miracles are not impossible. He never denied or questioned this. They say he adopted a philosophy of history and nature which forbade him to believe in miracles. But philosophy had little or nothing to do with his change. Grey had such a philosophy,—but, as is patent to those who do not jumble diverse things together, and as Grey himself distinctly says, Elsmere's mental development was on a totally different line. The complete failure of our ministers to so much as apprehend Elsmere's distinctive point of view is shown in their saying after Mr. Gladstone that while he follows the Squire in giving up the miracles, he does not, "for reasons unexplained," follow him in giving up theism. This would be indeed strange if, as is charged, Elsmere's mind had pinned itself on to the Squire; if he were simply the feeble dupe of Wendover's logic, it would be simply incomprehensible that he should not yield in both respects; yes, the fact that he did not, is the *reductio ad absurdum* of that charge and confirms the truth of Robert's words to his wife in relation to the Squire: "It was not his doing in any true sense. I am not such a weak shuttle-cock as that," though he allows the Squire's influence upon him and admits that it hastened everything.\* And why should Elsmere, because he ultimately gave up miracles, give up theism too? Why, unless in the mind of the objectors there is some connection between the two things? Why, unless they suppose that the same logic that is averse to miracles is averse to faith in God

also? But in this they show that they do not understand the logic of Elsmere's distrust in miracles, since one may feel it and yet have, and have a right to have, as much faith in God as ever.

The point is that a man's faith in God, if it is a logical faith, rests on philosophical foundations, while Elsmere's distrust of miracles rested purely on an historical basis. God, in the philosophic idea of Him, is not something that happens, but the First Principle of things; but a miracle, if it is real, is something that happens, and the same canons of historical investigation, that apply to all the events of the world's history, apply to it. The question of miracles—and it is the question of orthodox Christianity—is not a question of whether God exists or whether he acts in the world, but whether he acts in a peculiar and exceptional manner—in other words, whether certain extraordinary phenomena have taken place. Evidently, it is a question for trained historical students. One might admit and deeply feel that Christianity has done great good in the world, and is still doing it, one might be at loss to know what could take the place of it, one might be most reverently and affectionately attached to it, one might feel that so far as abstract argument goes nothing can be successfully said against it, one might even in a moment of despondency take comfort in the "thousand Christian colleges of the world and its four hundred thousand pulpits, which give no sign of being silenced," and feel edified by the statement that "miracles are the jewels which naturally adorn the brow of the celestial King"—and yet all this give little help to him in answering the simple, plain question, Did the miracles truly and really happen?

Now Robert's chosen line of study was history. He took it up with that fine and noble enthusiasm characteristic of him, little dreaming what fruits it would ultimately bear. He even planned a book, and, as it chanced, his researches took him into the early mediæval period when miracles were rife and were reported with the utmost good faith. One day he read a narrative by a Bishop in Southern France to Catherine. Her work dropped a moment on to her knee. "What extraordinary superstition!" she said, startled. "A bishop, Robert, and an educated man?" Robert nodded. "But it is the whole habit of mind," he said half to himself, staring into the fire, "that is so astounding. No one escapes it."† It was these hours and months of quiet study, before he even came into friendly relations with Wendover, that all unconsciously prepared the way for the bitter struggles that should come later. At first, no doubt, it never seriously occurred to him that the gospel miracles might be in the same category with the mediæval ones; to him, as to our ministers to-day, there was a plain line of demarcation between the "dubious miracles" which Romanism vouches for, and the miracles of the New Testament for which the evidence is so "massive and complete." But at last, and through the instrumentality of the Squire—though essentially the same thing would have happened sooner or later, in any case—the whole problem in his bearing on his personal faith was brought home to him. From the hints that the author gives us—and they are of course only hints, not detailed statements, as they might have been if her book had been instead of a novel the intellectual biography of one man—and yet hints that to trained theological scholars should be almost as good as complete statements, we gather that the multifarious questions relating to the ideas and mental habits of the Jewish people in the time of Jesus, the extent to which he shared in them, the origin of the gospels, their historical trustworthiness, and the testimony of Paul, were turned over in his mind. Or rather we may say that at the time of his noteworthy conversation with the Squire on that April day, he was already familiar with these questions; for the ideas, impressions and arguments bred in

\* Chapter xx.

† In this opinion, I am confirmed by articles in the *Andover Review* for September and the *Atlantic Monthly* for November.



him by his historical work,\* we are told crippled his power of resistance to the relentless sceptic, and the question after all, in its ultimate form, was simply whether the age of Jesus was so different from other ages, and the narrators of his miracles so much more like what competent, trustworthy reporters of such events should be, that these miracles are to be credited, and the others not. Robert knew—that is, he knew with his critically-trained intellect—that this was not the case; but it is another thing to practically adopt a conclusion, and for "three miserable months," we are told, he vainly, helplessly fought with his fate, his mind torn, his heart sore, living through that bitter struggle, which a sort of Mephistophelean sarcasm taking for a moment the tone of a Christian minister ventures to call "theatrical."

We are told that if Catherine had been more sympathetic, she might have helped him. Yes, she might—might a little, that is; for a true man's faith is a part of himself and the pain of losing it, no other person can totally assuage. But this is not the help meant. What is meant is that she might have prevented his theology from going awry, that a good and sympathetic Christian wife would have been better than evidences, arguments, sciences, facts, or books. A woman's love and sympathy are of priceless value to a man; but can they twist his intellect, can they keep him from seeing straight, can they dictate his solution of a scientific problem? What a perverse misuse of the sweetest treasure a man can have! How weak-minded in a man to allow such influence, and how much nobler a compliment to woman to imagine that she can be a searcher for truth with her husband, his intellectual companion, not enslaver, that she too can walk into darkness and the night with him and believe in the day beyond, yes, can in the darkness make light from the still fire of her love!

But no, Elsmere had to fight out his weary and wearying battle by himself; in this struggle which was more moral than intellectual, those clear but passionless and, one might almost say, conscienceless souls, Wendover and Langham—"souls at war" as Mrs Ward says, "with life and man, without holiness, without perfume"—men who stood in a certain narrow way for liberal ideas, but are of a type so repelling that the only effect of the book so far can be to make liberalism detestable—they, Elsmere felt, could give him no help; and so he turned to Grey, and to him not so much for light, as for approval, for advice as to a practical problem of duty.† He had himself felt that he must give up his living and his orders,‡ and after he had unburdened himself to this wide-browed man, who along with the intellect of a philosopher had the heart of a saint, and met with his approval, there was nothing for Elsmere but to cast the die; his career in the church came to an end.

The question may be considered in closing: Is there a difference between the miracles of the church and the miracles recorded in the gospel? One of the critics of Mrs. Ward's novel thinks there is a difference between an isolated portent, recorded in some mediæval or earlier chronicle by some one who heard that such and such a thing occurred or who claimed to have seen it, and the New Testament miracles in favor of which gathers such a combination, such a steel-linked net of weighty probabilities, arguments, evidences concurrent, in dependent, supporting, confirming, and conclusive, as has been shown over and over again. Plainly there would be a difference if such were a fair statement of the case. But what are the facts?

Leccky tells us that the writings of the Fathers contain numerous accounts of miracles which they alleged to have taken place in their own day and under their own notice. § Justin Martyr, who wrote in the second century distinctly asserts the continuance of

miracles in his time. The fact is, that if we trust to testimony, miracles became more and more numerous, more universal, more extraordinary, as the centuries went on. Let us take a special instance. The good and great Augustine solemnly asserts that in his own diocese of Hippo, in the space of two years, no less than seventy miracles had been wrought by the body of St. Stephen, and that in the neighboring province of Calama, where the relic had previously been, the number was incomparably greater. He gives a catalogue of what he deems undoubted miracles, which he says he had selected from a multitude so great, that volumes would be required to relate them all—and in that catalogue we find no less than five cases of restoration of life to the dead.\* It is impossible to question Augustine's veracity. The only question is, had he critical habits of mind? Was he not only a profound thinker, but an accurate observer? In these cases, did he observe at all? Apparently, he does not say so. Miracles were, perhaps, scarcely more improbable to him than the ordinary events of life and nature, and he credited them as reported, though he plainly used discrimination, as any sober man would in crediting ordinary occurrences.

The question is then, do we know that the writers of the gospels had critical habits which Augustine may have lacked? Was their age more scientific? Were they themselves accurate observers, or, in the case of the miracles they record, do they claim to have observed at all? If they were honest men,—and of that I for one make no question,—and were eye-witnesses and could not have been mistaken, I should credit their narratives as I should any other competent historical testimony. What is the fact? First, as to critical habits of thought among the people to whom they belonged; it was the common notion, to take but one instance, that certain nervous diseases were caused by indwelling evil spirits. Second, the gospel writers do not even claim to have observed the events they narrate; they describe miracles, but do not say *they* saw them. From the gospels themselves, we should not even know who their authors were, save possibly the fourth, about the historical worth of which it seems impossible for scholars to agree. The author of the third gospel especially disclaims being an eye-witness, nor does he say that any of the numerous gospels that were in existence when he wrote, were composed by eye-witnesses. So far as we have any light at all upon the origin of the first two gospels, it is from the second century†—and this only makes plain that the writer of our first gospel in its present form was not Matthew, and that the writer of the second in its present form is unlikely to have been Mark. In fact, the accounts are all second-hand, save by a bare possibility that of the fourth gospel; all we can say with any tolerable degree of confidence is that they represent the traditions of Jesus that were current in the second or third generation after he died. If we single out the resurrection,—the evidence for which one of the clergymen I have referred to, said on another occasion was stronger than that for the assassination of Julius Cæsar, and the death at St. Helena of Napoleon Bonaparte—we find that we have no direct testimony in its favor from one of the original twelve apostles, unless, as I have said by a bare possibility, it be John. It is supposed that we have epistles from Peter, James, and Jude—but none of them says that *he* saw the risen Jesus. There are plenty of statements that "he was seen," none that "I saw him."

Yes, there is one exception. It is that of Paul. Paul had never seen Jesus in the flesh, but in a vision he believed that Jesus had been revealed to him. No one can fail to admire the ardor, the heroism, yes, the profound intellectual qualities of this great reformer and propagandist. Of him we know more, of his personality we can form a more vivid and detailed conception, than of any other early Christian disciple, than even of Jesus himself. Of Jesus we know only indirectly; Paul lays bare his mind and his

\* Chapter xxvi.

† Chapter xxvii.

‡ Chapter xxvi.

§ Rationalism in Europe I, 168.

\* De Civitate Dei xii, c. 8.

† I refer to the testimony of Papias as quoted in Euseb. Eccles. Hist. iii, 39.



heart in his own epistles—for there are four undoubted ones. But was Paul of a critical habit of mind? Suppose you had an acquaintance who thought he had special revelations from heaven, who undertook journeys at (as he thought) supernatural instigation, who was not infrequently in a state of trance in which he saw Christ and had conversations with him, who occasionally fell into a state of ecstasy in which he could not tell whether he was in the body or out of it, should you be able to absolutely confide in him if he said to you some day that he had seen a man who, you knew, had died? Should you call him a reliable witness, however pure and good he might be, and however deep a thinker in other directions? Unless you were a Spiritualist, I much suspect you would think him to be off his balance. Yet this picture of a hypothetical acquaintance I have drawn from Paul's own statements about himself.

It was in a revelation that Paul saw the risen Jesus—revelation is the very word he uses to describe that wonderful experience; and what is more significant still, the revelation to him is the same in kind as those which he credited to the other disciples; so that, so far as his evidence goes, all the early disciples who saw Jesus after his death were men of this type,—that is, given to visions and revelations. It needs hardly to be stated that one's interpretation of these phenomena will depend more or less on one's interpretation of the phenomena of what is now called Spiritualism; though, if the Spiritualistic theory is true, there was no miracle about the resurrection of Jesus, and Jesus is no more thereby proved to have had a Divine mission, as the church has always triumphantly thought, than the last poor mortal who has been laid to rest and then has seemed to rise again. The fact is that when we earnestly ask for the positive evidence in behalf of the gospel miracles, it is either of a nature so second-hand, or otherwise so dubious, that it is scarcely possible unless we are Spiritualists, to base a confident belief upon it. We are not thereby led to say that the New Testament writers were "fools or else deceivers," or, to use another vigorous and rigorous form of expression, either "simpletons or frauds," any more than we are obliged to call St. Augustine either a simpleton or a fraud, or to call Sir Matthew Hale an imbecile or credulous enthusiast, because he believed in the reality of witchcraft, and sentenced two poor witches to be hanged, saying that he was fully satisfied with the verdict; we are not obliged to any more than we are obliged to call Spiritualists to-day "simpletons or frauds." A man may be mistaken without being either. "A man of veracity, judgment, and mental power," like England's Chief Justice in the time of Charles the Second, just referred to, may go sadly astray in one direction simply because of the presuppositions his mind worked on. Credulity itself is a relative term and what would be credulous to one living in the nineteenth century would not be to one living in the intellectual atmosphere of the seventeenth, not to say the second or the first. All that we are obliged to say is, that the miracles of the gospels, like others that we hear of, like witchcraft and demoniacal possession, are things in the air, that while those who want to believe in them can evidently do so, those who want simply to know the truth may be unable to find any ground for a confident opinion—in other words may be obliged to give them up as a part of their religious faith.

No manly soul will join in the whine that this is merely a negative result. Has it come to this—that men and women will not acknowledge a truth because it is called negative, and the argument for it analytical rather than synthetical? Men and women to-day are not children, and if a thing is in the air, which they had supposed to be solid fact, they want to become aware of it. I affirm that the heart of religion is untouched by abandoning all that Elsmere gave up; I join with that noble-minded Christian minister of New York, Heber Newton, in saying that Elsmere lost a religion and found religion. The pathetic thing is that our ordinary train-

ing has so identified religion with miracles, with tales of incarnation, revelation, resurrection, ascension, that we can hardly recognize it without them, that its deep and sublime meaning apart from them is hardly realized, yes, that in consequence many honest, sturdy men who will not have anything that cannot stand the light of day, are giving up religion altogether. Voices made themselves heard in France before the revolution, protesting against the narrowness of the old ecclesiastical ideas. *Elargissez Dieu*, they said. So we might say to-day, *Elargissez la Religion!* Take off the bands, let it grow, let it become as large as the best thought, the noblest conscience, the broadest sympathies of the time. I for one want a religion that will bind all good men together, whatever their theories or philosophies—bind them together in unselfish love, and in an ideal enthusiasm, bind them together in a holy war on all that is base, on all that is cruel and unjust, bind them together to make bad men good and good men better, bind them together in reverence for the past, in courage for the present and faith for the future, bind workingmen and employers together, bind each to all and all to each. Religion—yes, it is that which binds one; only let us be bound by the best and not by that which may narrow us and prove a burden too great to be born. It was in this direction, whatever his limitations, that Elsmere—that eager spirit who struggled so bravely and spent himself so soon—was tending; and it is in this direction that a man may go feeling that he is not merely following a device of his own, but co-operating with the best tendencies of the time, fulfilling one of those various tasks which the Spirit of the wide World, in the successive ages of human history, commits to men. And as I think of Elsmere wasting away in Algiers and sinking into untroubled sleep at last, there come to my mind those pathetic and yet ringing words of Eichendorff, which I cannot attempt to translate:

"Wo immer müde Fechter  
Sinken im müßigen Strauss,  
Es kommen frische Geschlechter  
Und fechten es ehrlich aus."

## SONNET.

BY LOUIS BELKOE, JR.

I send the roses that I love to-day,  
The pale ones and dark red. I've found them here  
Like those of France, and send them with sincere  
Well-wishes and the word I dare not say.

They're fresh and perfect now, but if delay  
Should give them time to wither, as I fear,  
Accept them from me as they now appear,  
Remembering they've been long upon the way.

Remembering that my fairest thoughts, expressed  
In terms of little worth, for lack of art,  
Must reach you withered flowers, at the best.

Remembering that the purer, nobler part  
Of all I feel must fade within my breast;  
The way's so long between my lips and heart.

## JOB'S PRAYER.

BY CLINTON COLLINS.

Teach me, O Lord, to know,  
That beyond the clouds, however dark they be,  
There is blue sky.  
That, however threatening low those clouds  
May hang,  
The wind may break and sweep them by.



Teach me, O Lord, to know,  
That day is sure to follow e'en the darkest  
night.  
That Work is the Sun which puts the  
darkness into flight.  
Teach me, O Lord, to know what Work is,  
Not strivings after riches, power and  
fame, the livelong day,  
But patient endeavor to mould and  
Shape the spirit from the clay.

### THREE MOTHER SONGS.

From *L. Prang's Baby's Lullaby Book*.

#### I. THE LULLABY.

A lullaby the blithe bird sings  
When her light nest the south wind swings,  
Still sings when wild the north winds blow  
From out the land of storm and snow—  
The while the nestlings grow their wings.  
Held safe within the coiled hair rings,  
What wind of south or north wind brings  
Is naught to them, if she sing so  
A lullaby.

And peasant child or child of kings,  
Round mothers' neck the baby clings,  
Smiles out from every baby woe,  
And falls asleep, when she sings low  
With sweet bird notes and twitterings.  
A lullaby.

#### II. THE ROSE BUD.

O the red rose-tree has a bud my dear,  
So sweet, so sweet, so sweet.  
Thy mother her babe to her heart holds near  
So sweet, so sweet, so sweet.  
And the bud shall blow  
To a rose,  
And baby shall grow,  
O, who knows  
To what wonder my baby may grow.  
In the still rose-tree sleeps the bud all night  
My sweet, my sweet, my sweet.  
So sleep in my heart while the stars shine bright  
My sweet, my sweet, my sweet.

O the bud shall blow

To a rose,

And baby shall grow

O, who knows

To what wonder my baby may grow.

#### III. THE WATER LILY.

If I were a lily, a white water lily—  
A white lily—  
And you were my sweet yellow heart,  
My petals of snow should enfold you  
Till none  
But the sun  
And the stars in the blue could behold you  
So sheltered apart.  
Dream now—I'm a lily, thine own mother lily  
A love lily,  
And you are my golden sweet heart;  
My arms and my love both enfold you  
Till none  
But the sun  
And the father in heaven can behold you,  
So sheltered thou art.

### NOTES.

During the holiday week, in Chicago, a course of lectures will be held upon Goethe. Among the lecturers are Prof. Calvin Thomas, Mrs. Catherine Sherman, and Professor Davidson.

*Lead a Hand*, a Monthly Magazine of Organized Philanthropy, reaches us regularly and contains much useful information and advice upon how to improve the social, educational, sanitary and other conditions of life in the most practical way.

Professor Davidson read a series of papers at Chicago, based upon the philosophy of Aristotle. He discoursed upon three authors representing the True, the Good, and the Beautiful, whom he finds to be Thomas Aquinas, Bonaventura, and Dante. Professor Davidson is full of his subject, and an enthusiastic admirer of these heroes in the realm of thought. His presentation of the subject is scholarly as well as original, although it seems that he accepts too much of the mediæval views that attached to these thinkers, and unnecessarily places such men as Kant and Darwin in the same line with materialism and other destructive philosophies. We hope that Professor Davidson will have the lectures printed.

*Naturwissenschaftliche Wochenschrift*, published by Hermann Riemann, Berlin, N. W. 6 Luisenplatz 11, is a journal of Natural Science and contains articles of interest for all. In the latest number, of December 2d, Boenecke discusses the structure of the Brocken mountain with diagrams. Professor K. Kraepelin calls attention to the importance and educational influence of Museums of Natural History. Another article is dedicated to the memory of William Herschel. Among the correspondents we find a letter of Dr. Victor Schegel's on Four-dimensional Space. Schlegel, it may be mentioned, was a younger colleague of Professor Grassmann whose work in the empire of mathematics is discussed in the editorial on pages 1370 and 1371 of *THE OPEN COURT*, and has done much to call the attention of scientists to Grassmann's 'Theory of Extension.'

### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

#### CHAPTER XXVIII

The Sovereign still continued silent; at last he began, in a bitter tone:

"What you tell me surprises me. Considering you as the Prince's instructor, I may speak more openly to you than to my household. The Prince has a weak character, and I have no confidence in his future."

"He gave us the impression of having, under all this shy reserve, the qualities for the formation of a firm and noble character," replied the Professor, respectfully.

Ilse thought that this was the moment to introduce something advantageous to the Prince.

"May I venture to tell your Highness, which my husband entirely approves of, that the Prince wishes far more knowledge concerning agricultural industry? As I am myself from the country, your Highness will forgive me if I should say that this is the best school for our dear young Prince."

"On the estate of your father?" asked the Sovereign shortly.

"Anywhere," replied Ilse, innocently.

"I have never heard him express any such wish,"

\* Translation copyrighted.



concluded the Sovereign, rising. "In any case I am grateful to you for the interest you take in his future."

He took leave with an air of reserve, and returned to his daily business.

The day was a difficult one for all who had to do with him. He rode out with his aide-de-camp into a rough, woody country, where his soldiers after a night-march were practising field service. Generally he cared little about the details of manœuvres, but on this occasion he harassed his aides-de-camp and soldiers by sudden changes of disposition. When the soldiers at last returned home exhausted, he went to inspect a distant stud and a plantation, and wandered about four hours on rough hill roads. No one could do anything to suit him—blame and bitter remarks alone fell from his lips. In the evening there was a Court concert; the aide-de-camp, tired to death, stood in the hall, counting the minutes till his retirement. Then the Sovereign on withdrawing, called him to his study; there he seated himself in an arm-chair near the fire-place and gazed at the fire, occasionally put on a log, and held the silver handle of the fire-tongs in his hand, striking it at intervals on the iron bars of the grate. Meanwhile the aide-de-camp stood some steps behind him, one hour, two hours, till he was ready to faint. It was not till the middle of the night that the Sovereign rose and said, "You must be tired; I will not detain you longer." He spoke this mildly, but his eyes glittered with an unpleasant gleam, and the aide-de-camp acknowledged later to his intimate friends that he should not forget that look as long as he lived.

"The Sovereign has visited the pavillon for the third time!" said the Chamberlain, to the Hereditary Prince, who was sitting in his room with his throat tied up. The Prince looked down on the book which was lying before him.

"Do the guests seem to like their residence here?"

"I cannot say that of the Professor's wife: I fear she is placed in a difficult position here. The marked distinction which his Highness shows her, and certain old recollections which attach to the pavilion——"

The Prince rose, and looked so indignantly at the Chamberlain that he became mute.

"The Sovereign was very ungracious to-day," he continued, in a depressed tone. "When I reported to him concerning your Highness's health, I met with a reception which was not encouraging."

The Hereditary Prince approached the window.

"The air is mild, Weidegg; I shall endeavor to go out to-morrow."

The Chamberlain was very uncertain how this decision of the Hereditary Prince would be received: he departed in silence.

When the Prince was alone, he tore the shawl from his shoulders and threw it on one side.

"Fool that I was! I wished to preserve her from gossip, and have exposed her to worse. I myself sit here in seclusion, and my father visits her in my stead. It was a cowardly device. If I cannot avert what is impending for this poor creature, I will play my part in the game that is beginning."

When the Prince on the following morning went to his father, the latter began, with calm coldness:

"I hear from strangers that you have the desire to obtain some knowledge of agriculture. The wish is sensible. I shall consider how you can find an opportunity to obtain this knowledge somewhere in the country. It will also be advantageous to your health, and will agree with your inclination for a quite poetic life."

I shall do what my honored father bids me," replied the Hereditary Prince, and left the room.

The Sovereign looked after him, and murmured:

"Not a word to be got out of him but cowardly submission; always the same submissive compliance. Not an eyelash moved when I ordered him to do what was unwelcome. Is it possible that this pliant boy is a master of dissimulation, and is deceiving me and all of us?"

If Ilse in spite of the distinction with which the Prince treated her, had a foreboding of the dark shadow which hung over the pavilion, far different was the tone of mind of her husband; he lived in the midst of the interesting investigations to which the museum gave rise, and the poetry of his earnest mind worked busily, and cast a brilliant lustre over his sojourn in the capital. He was a hunter who trod with light step over his hunting ground, breathing the pure mountain air, whilst around him the rays of the sun gilded the mossy ground and heather. The time had now come when that of which he had dreamt for years was within reach of his hand. It is true the new track of the manuscript remained indistinct. The fate of that chest which had been mentioned in the old letter could not be ascertained. In the Prince's library, and in a collection of books in the city, there were found neither manuscripts nor other books which could be ranked among the possessions of the monastery of Rossau. He had renewed his acquaintance with the head-forester, but the latter could think of no place where old hunting implements were kept. He went through old catalogues of the Marshal's office, and nowhere could the chest be discovered. But it was more strange still that the name of a royal castle Solitude was quite unknown in the capital. The castle, like one in an old legend, had vanished. But, strange as this circumstance was, yet the account of the student



had won for this old letter of the official an importance which gave the searcher hopes of a good result. For only a few years ago some one, who knew little of the value of such a narrative, had seen the Rossau chest. It was no longer a deceptive image from a distant past; on any day a lucky accident might lead him to it. But when the Professor gazed on the slate roof of the royal castle, and ascended the grand steps, he had always a joyful presentiment that he was now near his treasure. With the help of the Castellán he had already examined the whole ground-floor of the castle; he had climbed up under the beams of the old roof like a marten, and had opened the old garrets, the keys of which had not turned for a generation. He had found nothing. But there were other houses belonging to the Sovereign in the town and neighborhood, and he was quite decided to examine one after the other secretly.

In this time of restless agitation, when his fancy was always opening new prospects, intercourse with agreeable persons was very refreshing. He himself, in this state of excitement, proved a good companion, and observed with cheerful interest the proceedings of those about him. The Sovereign showed him great distinction, and the young noblemen were very attentive; he took his place among them with dignity and without pretension.

The Chamberlain informed the Professor how much the Princess had been pleased with him, and Felix rejoiced when one forenoon she and her lady-in-waiting visited the museum, and begged for his guidance. When the Princess was going away, thanking him, she begged he would mention to her some books from which she could herself learn a little about that portion of the life of antiquity, the ruins connected with which he had shown her; she told him also of an ancient vase which she possessed, and asked him to come and see it.

The learned man was now standing with the Princess before the vase. He explained to her the subject of the pictures, and told her something about the old Greek pottery. The Princess led him into another room, and showed him some valuable sketches. "I wish you to see all I possess of objects of art." While he was examining these, she began, suddenly: "You have now learnt to know us a little, and how do you like us?"

"I have met with great kindness," replied the Professor, "which is agreeable to one's self-esteem; it gives me pleasure to observe a life so different from that of my circle and people, who are differently bred." "In what do you find us differently bred?" asked the Princess, pressingly.

"The habit of acting your part fittingly at every moment, and maintaining your position among others,

give persons an easy confidence, which always has a pleasant effect."

"That would be an advantage which we share with every tolerable actor," replied the Princess.

"At all events, it is an advantage always to play the same rôle."

"You think, therefore, it is no longer art if we become adepts in it, and act our part well," rejoined the Princess, smiling; "but in that also there is danger; we are from childhood so much accustomed to behave suitably, that it endangers our sincerity; we observe the effects of our words, and we soon think more of the good effect than of the purport of what is said. I myself, while talking with you, remark with pleasure how much I please you, yet I am nothing more than a poor princess. But if our aptness in presentation pleases you, in like manner we are attracted by a character that is calm and confident without attending to outward appearances; and perhaps a deficiency in the forms of society and the plain speaking of a powerful mind are interesting to us, if they do not wound our feelings, for on this point we are sensitive. Whoever would wish to leave a pleasant impression, would do well to treat our pretensions with consideration. I do not wish you to treat me so," she said, interrupting herself, "but I am solicitous on your account. Yesterday I heard you flatly contradicting my father. I beg of you to have regard for our weakness, for I hope that you are still to remain long with us."

The Professor bowed. "If I opposed his views more warmly than was necessary, it is because I lie under a temptation which is dangerous to men of my calling. Disputation is the weakness of men of learning."

"Good, we will reckon up our qualities one against the other. But you are in the happy position of always attacking things boldly; we, on the contrary, must be cautiously on the defensive. The great importance of external appearances is instilled into us from youth, and cannot be dispensed with. With you there is probably seldom any strife about precedence, and I fear it is quite immaterial to you what place you take in our degrees of rank; but these things are great events to us, not only to our Court, but still more to ourselves. Many of us are for days unhappy, because we have not taken our proper place at dinner. Many visits are discontinued on that account, old alliances are broken off, and there is frequent quarrelling behind the scenes. When we occasionally meet with clever people of your stamp, we ourselves laugh over these weaknesses, but few are free from them. I have already fought for my place at dinner, and made a great fuss about it," she added, with good-humored frankness.

(To be continued.)



## BOOK REVIEWS.

AMERICA'S YOUNGER POETS. A Collection of Poems by America's Younger Poets. Vol. I. Philadelphia: The Westminster Publishing Company, 619 Walnut Street. 1888.

America is too much reproached for lack of Poetry and Idealism. The neat volume before us is the best proof that the spirit of poetry has not died. We find beautiful gems in this collection from the pens of Frederic Allison Tupper, Ella Higginson, Ella Du Birg, S. Mansfield, Geo. L. Raymond, etc. We miss the name of Mr. Louis Belrose, Jr., whose poems are marked by unusual force and grace. Some of the finest verses are written by our contributor, Gowan Lea. Most tender and thoughtful appear the following lines:

I watch the birds that hop about my feet  
Across the lengthening shadows on the lawn,  
And see them perch upon the slender twigs,  
And lightly sway themselves from tree to tree,  
Then soar into the peaceful blue of heaven,  
And send to earth a perfect flood of song.

Oft will man envy these glad birds their wings,  
Forgetting his soul's pinions, that can take  
Him on from flower to flower and peak to peak  
And upward to that vast ethereal dome  
Beyond where bird can reach or wind may blow,  
And back and forth through all the centuries  
(From ages past to ages yet to be)  
Until, as free as lark in yon blue sky,  
He soars in the pure azure of his thought,  
And utters songs that lift the human world.

THE DREAM OF LOVE AND FIRE. By *A Dreamer*. Boston: Estes & Lauriat.

The dream narrated in this volume is a prophesy given by a seer to Cleopatra about her re-incarnation after two thousand years "in a yet unknown western world." The seer, questioned by the Egyptian queen, expounds his philosophy of soul-life. "Love between souls forms a deathless bond for all eternity. \* \* \* Therefore did love give life to death and death to all that lives; for what is death but change?" Death, we are told, is the passive, and love is the active force in life; "motion underlies all life, \* \* \* and thought is but a mode of life-motion." The arrival of Christ is, in the prophesy indicated, "to raise man's fallen race in time to high estate," which is of importance for the re-incarnation of Cleopatra, because "Only the pure in soul can quickly rise to higher planes of love."

The seer's philosophy is strangely mingled with phantastic imaginations about the soul-sense, thought-force, the hidden power of colors, and of music, and about the relations of fire to life. Undoubtedly it is the author himself who clothes his views in the language of the seer.

The volume contains five beautiful photo-gravures in color, representing scenes from Cleopatra's life, after famous pictures.

There is a great deal of pleasant chat about Art and Artists in the December number of the *Art Amateur*, as well as sound technical instruction for those engaged in Decorative Art.

My Note Book opens with a slight notice of the death of Feyen Perrin, and an account of his works, which are probably little known to the general public. His best known picture is "Les Cancales." This represents an old custom of Cancale by which on a certain day the inhabitants are allowed to take from private fishing grounds all the oysters they can carry away.

The Circular of General Hawkins, the Commissioner of Amer-

ican Works of Art for the Paris Exposition, gives important information in regard to the class of pictures which will be received, and the manner in which they must be sent.

The Verestchagin pictures are pretty severely criticized. Still, they are certainly novel, and possess interesting traits which will attract attention.

We are sorry to learn that the late Exhibition of American Pottery and Porcelain was not more satisfactory. It is good to learn, however, that abundant material for this manufacture exists here—that much of the mechanical work is excellent, and that we need only more knowledge, taste, and originality in artistic design, to make this branch of decorative art thoroughly successful.

The decoration of the Home, especially that important part the Dining Room, receives much attention, and illustrations from rooms in actual use are furnished. The printed designs in color have some points of attraction. The head in "profile perdue" has some delicate coloring, and the Winter Landscape is quite effective. Some designs for ornamental crosses in Embroidery on Linen will be welcome to persons of ritual proclivities.

It is a good number with which to close the year, and we trust that the New Year will open full of promise. Z. D. C.

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CHICAGO, DECEMBER 27, 1888.

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## CHRISTIANITY AND MONISM.

A CRITICISM OF THE WORK OF "THE OPEN COURT" BY

DR. GUSTAV CARUS,

SUPERINTENDENT GENERAL OF THE STATE CHURCH OF EASTERN PRUSSIA.

THE OPEN COURT has awakened in me a high degree of interest. To be frank, however, I will have to confess that serious doubts have arisen in my mind. First, a consideration occurs which touches the outward prospects of the journal, yet which is not unconnected with its inner character. I cannot, in fact, resist the misgiving that the journal will not prosper for any great length of time in a degree answering to the expectations of its founder and calculated to encourage further efforts. Not that I would wish to question the ability, the foresight, and the skill of the editorial management! But the great and weighty problems, which the paper proposes to discuss and which, one will confess, would greatly interest every thinking and highly cultured person, are unfortunately too far removed from the average minds of the public at large as permanently to engage their attention. Added to this there comes a further consideration, which, in my candid opinion, will definitely decide the success of the undertaking. The main purpose, the philosophical conception of the world advanced by the journal, can, even to persons given to serious meditation upon the subject, afford no complete satisfaction of thought or feeling; can neither answer to the needs of the intellect, nor respond to the yearnings of the heart.

THE OPEN COURT proposes to establish the philosophy of monism. By monism, I suppose, it is understood that this theory of the universe is in opposition to the other which is generally known as dualism, and which holds that the world,—the All,—was created by a Supreme Being, a living personal God who existed before and beyond it, and that it continues to be sustained and governed by the same Power. This latter view is commonly termed Theism, in contradistinction to Deism, which, although it likewise postulates a personal God as the Creator of the world, yet totally separates Him, after the completion of His work, from all connection with the same. Deism will not allow of any permanent living relation of God with the world; it rejects His immanency, and holds that, after God called the world into being, He simply left it to itself and,

Himself refraining from any interference whatever in the course of cosmic progress, committed its further development to the newly established laws of nature. This view of Deism, I too reject; but all the more firmly established does Theism stand forth in my mind as the truly religious, the Christian, theory of the universe.

Like Theism, Monism also undertakes to uphold a single causal principle for the world, from which the further development of the All wholly proceeds. But it renounces—influenced, doubtless, by the Kantian theory of the unknowability of 'the thing of itself'—every positive determination of this fundamental principle of the world or All; going only so far as to repudiate emphatically the personal nature and the self-consciousness of its Monas. In this point it falls back far beneath Kant, who, although theoretically unable to conceive of God, Freedom, and Immortality, yet after he had driven them out through the front-door of his theory of cognition, admitted all three principles again through the back-door of practical reason:—so imbued was he with the belief that the mind cannot comprehend life and the world without God, and without accepting the continuance for all eternity of the personality of the soul.

It is, and remains, an impracticable thought to the human mind, that the whole order of the world should have been developed from a being not conscious of itself. How could organic life, Mind, Reason, the ideas of the True, the Beautiful, and the Good, have arisen: Consciousness from the Unconscious! The one the parent of the other! All that may be said in this connection against materialism, atheism, and pantheism, applies with equal force to monism.

The Monism of THE OPEN COURT, it is true, endeavors to find a higher footing, by characterizing itself as "Meliorism." It will have nothing to do, accordingly, with the theory that the world,—its origin, history, and destiny,—is the mere product of a planless and irrational condition; absolutely nothing, further, with the current theory of pessimism which finds everything in the world bad, the worst possible in fact, and sees the only way of deliverance out of the hopeless corruption of the world (the physical as well as the moral) in the annihilation and destruction of the same. Meliorism, more properly, proposes to stimulate the ethical aspirations of free rational agents towards ef-



fecting an ever more complete organization of all the forms of life; and, in so doing, it advances the astonishing proposition, that with the moral ennoblement of free rational agents the conditions and relations of the world in general will assume higher and more perfect forms:—through the agency of what power it does not say.

A meliorism of this character reflects honor upon the depth and tone of mind of its advocates; it recognizes that it would be both unreasonable and impious to suppose that the All (to use its own language), led a roving and vagrant life, without reason, aim, and purpose. The deficiency present in the system regarding the knowledge of the "Whence" of the world, it seeks to supply, in some measure, by an emphatic affirmation of a definite "Whither"! This, as was said, does great honor to the tone of mind of its advocates. But, scientifically regarded, these promises and expectations, as well as the ethics founded thereon, from the very principles of meliorism itself, are unwarrantable. Whence, pray, does Meliorism know all about the moral and cosmical purpose of the world? It itself has no speculative methods to derive it from itself; while geology, and the natural sciences in general, as well as history and experience, afford us numerous instances that militate against it. The eschatological views of a perfected world-arrangement expected in time to come, when considered even from the standpoint of monism, cannot but be regarded as poetical reveries and illusive phantasmagoria. They are, in fact, nothing more than defaced and distorted remnants that have been unconsciously torn from the body of the Christian theory of the universe. With the fundamental conception of Monism itself they stand in sharp antagonism and find in it no organic position. In no instance, in fact, has the Pantheist, or however else the denyer of God may choose to call himself, ever upheld either the free moral agency of the soul (which is after all the postulate of all ethical claims) or the blessedness hoped for from the further development of the world.

A further defect of this melioristic Monism lies in the fact, that the universal aim of the world,—to realize which we are to aspire, and the fulfillment of which is promised and believed,—is separated from the life-aim of individual rational beings. None of the latter, according to that system, has an aim in life. No other value is assigned them than to be transitional stages on the high road of universal progress—manure, merely, for the fields of universal history; joints and bolts in the machinery of universal evolution, that are thrown away when worn and spent. But one exception to this is made and that in favor of the creatures living at the close of the evolutionary process; although even their fate and course of life are but sketched in

misty outlines. What ruthless cruelty is thus imposed upon the All, in that the cup of bliss is kept alone for a race of individuals who are to appear at an infinite distance of time, while all that have gone before, burdened by a horrible fate, must perish in the process. Where does Monism know all this from? Where will Monism find scientific support for all this? It is nothing but dreams and phantasms that is offered here—aërial flights.

My intention here was simply to point out in brief the scientific incompleteness of the monism characterized as meliorism. It is a view of the world which has no solid foundation beneath it, and which lacks all logical consistency; a view which, as the best it can give, offers nothing but phantasies and illusions, neither affording an assurance that the latter will ever be realized, nor adducing an authority for condemning thousands of generations and demanding of them to thrill with enthusiasm for dreams and fictions, while really requiring them to lead a wretched existence. If, however, in so far as that may be at all possible, the monistic theory of the universe becomes strict and logical—a coherent and consistent system in itself, stripped of its melioristic phantasies—we would then have a theory of the universe which, theoretically, might stand a little higher than the so-called meliorism, but which breathes the deadly breath of absolute hopelessness, and of degradation of the personality of man,—wholly apart from the truly fearful consequences, which I will not consider, that such a doctrine, if it ever became the common property of the human race, would unfailingly draw with it.

But one of two things, however, is possible; there is no third course: *Either*, we are to deny a personal God and then be compelled by a meagre rational process to rest content with the notion that the world is the product of accident (which every sound mind must regard as utter nonsense), and as an unavoidable consequence be forced to renounce the substantiality of the soul, its freedom of will, its immortality, in brief to abandon every higher dignity that pertains to man; *Or*, we are resolutely to accept a living God and to honor Him. Then does light come into darkness, and then are we enabled to render rational the recognition of mysteries that, at the present stage of our existence, we cannot fathom.

The world-mystery can be solved only upon the basis of the religious, the Christian, conception of the universe. Christianity is and remains the only true philosophy that equally contents the mind and the soul, that satisfies alike the thought of the intellect and the yearnings of the heart. Our ancestors, with this in view, called the soul *anima naturaliter Christiana*, which means that the soul is naturally predisposed to the acceptance of the Christian philoso-



phy. No other philosophical view will ever gain a firm footing in the human mind,—in no case one which denies the living God and so deeply degrades the personality of man as to dispute its moral freedom and eternal lastingness.

Should THE OPEN COURT, in the eventual development of its intellectual aim, determine to conceive the Monas of its Monism in this sense, namely, as a personal God, and thus to give its meliorism the proper substruction, I would then entertain the hope of its further support and continuation. The course of intellectual development in Germany has long since taken this direction, and really cultured minds have long since discarded the threadbare remnants of Atheism, Pantheism, Deism, or of whatever else the forms of God-renunciation may be called. Thence the present youthful revival among our people. The quibbling sophistries that delight in renouncing God, the Freedom of the Will, and the Immortality of the Soul, are long since recognized as the marks of a degenerate and imperfect culture that can only stifle the vigor and energy of life, and which must stunt in a people the sense of the true worth of human life, should these irreligious and unethical principles ever assume a serious front and no longer remain the mere mental freaks of literary adepts. For irreligious and unethical they certainly are, even though by a misuse of language they be called religious and ethical. There is no religion without a personal God; and without free will, without accountability for acts and omissions, there is likewise no morality.

#### THE RELIGIOUS CHARACTER OF MONISM.

IN REPLY TO THE CRITICISM OF DR. GUSTAV CARUS.

The proprietor and editor of THE OPEN COURT have the honor of presenting to their readers a criticism on the work of this journal written by one of the most prominent clergymen of Germany. Dr. Gustav Carus, the father of the editor of THE OPEN COURT, is the Superintendent General\* of the State Church of Eastern Prussia. His views are an accurate and true exposition of orthodox Christianity in Protestant Germany based on and combined with scientific and philosophical erudition.

Before entering into the details of the discussion it must be stated that our venerable and most respected critic has allowed some misconceptions concerning the tenets of THE OPEN COURT to enter his mind. The Monism of THE OPEN COURT, although it opposes the systems of orthodoxy, differs fundamentally from the prevailing freethought, which destroys and intends to destroy all religious life and faith and ideals.

It differs especially from that view which is commonly called Materialism,—a view which the cruder it is, the more radical do its advocates consider it.

Freethought is so much identified with Materialism that this prejudice has been and will, for a long time still, be one of the greatest obstacles to the progress of freethought. The Monism of THE OPEN COURT is not a mere destructive philosophy of negation which considers religion as a superstition, and the order of the world as the fortuitous result of blind forces; it is not satisfied with the negative results of agnosticism and most emphatically objects to the belief in any unknowability. The Monism of THE OPEN COURT, taking its stand on the unitary conception of science, considers the irrefragable law of nature as the basis of morals, to which man's conduct must conform. The Monism of THE OPEN COURT is not an irreligious renunciation of the ethical *ought* for the scientific *must* as represented in cosmical laws. Nor is it a repudiation of science and the scientific recognition of the *must* which, as theology maintains, must be denied or at least limited, in order to make room for freedom of will and moral responsibility, which are the conditions of the ethical *ought*. The Monism of THE OPEN COURT is in so far a new philosophy as it proposes a unitary conception of the world not only in the province of scientific enquiry but also in ethics and religion. The *ought* of ethics and the *must* of nature are two aspects only, of one and the same reality. The freedom of will, the self-determination of a rational being, is not at all annihilated by the fact that all events in the world proceed necessarily from their conditions. Monism fully accepts the doctrine of the freedom of will, although the idea is rejected that freedom of will means a fortuitous outcome of chance which cannot be determined by, and is not subject to, certain laws.\* What man feels as an *ought*, or categorical imperative for his *conduct*, does not proceed from a mysterious power but is the natural outgrowth of his rational nature. It is a necessary result of life's evolution on earth; and the *ought* must be obeyed under penalty of evil consequences or even of annihilation (for death is the meed of sin) and the *ought* must lead humanity onward on the path of progress. 'Must' and 'ought' are both proper expressions, although one-sided,—the one for scientific, the other for ethical purposes,—yet both are expressions of one and the same fact and thus complementary. There is in reality neither a *must* nor an *ought*, but only an *is*. Ethics as well as science tries to go beyond the *is* of the present, by searching for its *whence* and *whither*. The 'whither' appears to science as a 'must,' to ethics as an 'ought'; but it is both a 'must' as well as an 'ought,' being an *is to be*.

\* The position of Superintendent General in the Prussian Church is comparable to that of Bishop in the Anglican.

\* See the Editorial in No. 33, "Determinism and Free Will."



Far from denying either the order of the world which finds its proper formulation in the *must* of science, or the moral responsibility of man as the condition of the ethical *ought*, the Monism of THE OPEN COURT unites and identifies both in so far as it derives and explains the one from the other.

From this standpoint the old theologies do not appear as mere phantasms or nonsensical vagaries, but as a necessary stage in the development of religious thought. They are founded on truth in so far as their ethics upon the whole are correct. They are wrong in so far only as they place themselves from principle in opposition to science. No supernatural revelation is needed to teach man his duties of life. The whole universe is open to our investigations. In the grand book of Nature we must look for the sole and true revelation, not only to understand the *is*, but the *must* and the *ought* also;—not only to grasp the actual *here* of the present, but also the *whence* and the *whither*. Only by studying the *whence*, can we hope to find information as to the *whither*; and the preacher of morals, we maintain, must search for and will find a justification of his ethics in science. There can be no conflict between true ethics and true science, and whoever finds himself driven to acknowledge such a conflict, he may rest assured that either his ethics or his science, perhaps both, are wrong.

But a conflict between science and ethics must necessarily take place the moment the idea of a supernatural revelation is accepted. The belief in a supernatural revelation leads unmistakably to Dualism. It separates man into his soul and his body, and the unity of All-Existence into a living God and a dead nature. According to Monism Nature is a Cosmos, a living whole which has its law and order in itself as an intrinsic property. Therefore, Monism considers the personality of God as a mere allegory. Man is the son of nature and may be called a microcosm in so far as in his mind the order of the cosmos is mirrored. He is the highest representation and realization of that order on earth, and thus, biblically speaking, a being created in the image of God. Therefore it is but natural and justifiable that man should create his God in his own likeness. Theism is a grand, but nevertheless anthropomorphic and erroneous, conception of Deity.

In creating God after our own likeness we should be careful to select those qualities which are most essential and imperishable. The order in our mind, which is commonly called reason, has grown from the order that pervades the universe. The law and regularity of the universe are not only imperishable but they are also that feature which renders nature divine and grand.

If we create God in the likeness of our ego as a

personal God, we attribute to him the limitations to which we are subject, and we endow him with our most perishable and most defective qualities. In this way we would be forced to accept the most incredible impossibilities of his mysterious existence.

It is stated on page 1379 of THE OPEN COURT: "It is, and remains, an impracticable thought to the human mind, that the whole order of the world should have been developed from a being not conscious of itself." We object to this conception of the world. Order itself is *not* developed but *the present state* of order has been developed. Order in the world is immanent.

The word order is used in two senses; in the objective sense order is identical with necessity or conformity to law. This objective order has not been created and cannot have been created. Thus Kepler's law, that the radius vector of a planet describes equal areas in equal periods, is an immanent law which we can not think of as having been developed from or by a conscious being. It can not have been ordained or posited as an act of purpose or design. All these laws can be formulated and computed by mathematics and arithmetic. All the wonderful order of the universe is ultimately the same regularity as that which is found in the simple rule of  $1 + 1 = 2$ , or  $2 \times 2 = 4$ . The difference between these simple equations and Kepler's law is entirely one of more or less complexity. Laws as  $2 \times 2 = 4$  and other formal laws can not have been created or established in the same way as ukases are issued by a monarch. They are recognized as immanent and intrinsically necessary.

In a subjective sense, order is that arrangement which best conforms to and agrees with ourselves. This subjective kind of order is not intrinsically necessary, but must be created by our efforts and our labor. In creating this subjective order, nature being the raw material for man's work appears to man as wanting in order and conformity. But this want is merely relative; nature lacks conformity only to some special needs of man. In truth a realization of the subjective order or the conformity of nature to man's special needs is only possible by reason of that objective order of nature which we have learnt to be immanent and necessary.

The doctrine of Meliorism, which in the Editorial of No. 48 is represented as the ethical aspect of Monism, has been proposed in opposition to Optimism and Pessimism.

Christianity is usually ranged among the pessimistic religions. Schopenhauer points out that it considers the world as bad in its foundation. The prince of this world is the devil, who allures and entices to a transitory sham-happiness. Christ came into this life to suffer and die, in order that he might show the



way of salvation. Man is a stranger, a pilgrim in this world, and destined to suffer for the purpose of purifying his soul. The symbol of Christianity is the cross, an instrument of penal torture, and indeed in those times crucifixion was most degrading—the capital punishment for slaves and criminals.

Certainly this world does not exist for happiness, or Christianity would not have overcome the most civilized races on earth. We should bear in mind that life itself has no value, yet life may acquire value through what it contains. If our days are passed without actions worthy to be done, then they are indeed spent as a tale that is told, although they may be four score years or more. Our actions can give and must give value to the days of our life, yet is their strength labor and sorrow. For a life worthy to be lived is one that is full of active aspiration for something higher and better.

Christianity, however, is not pure pessimism; it propounds most valuable melioristic ideas, which are seen in its ideals of "Faith, Hope and Charity." The pessimistic features of Christianity were most predominant during the middle ages, in the asceticism of the monks and their unnatural repudiation of earthly things. The Meliorism of Christianity came to the front since the Reformation. Luther's marriage was a moral deed which denotes a rupture with the pessimistic view of the meritoriousness of celibacy. The marriage of a clergyman whose whole life is to be devoted to religion, marks a progress to Meliorism. It shows that the religion of the Reformation no longer intends to be at variance with the world and with human life on earth.

The Meliorism of the Monistic philosophy, we admit, is an outcome of Christianity. But it is not "a distorted remnant of Christianity." It is the next step in the ethical evolution of mankind. Nor does it stand in contradiction to the Monistic conception of the world. On the contrary, it is the inevitable consequence thereof. Dualism, which tears asunder the unitary cosmos, naturally leads to pessimism. It teaches to abandon life with even its most innocent enjoyments, to retire from the world and from worldly aspirations for the sake of another world and the ghost-existence in an imaginary beyond. The purpose of ethics must find its sphere here on earth, nor should the *whence* or *whither* of life be disconnected from the present. It was the monistic tendency of the Renaissance, and the regeneration of the sciences chiefly, that brought about the melioristic trend of the Reformation. Therefore Monism alone can teach the harmonious ethics of Meliorism.

Meliorism, in the sense defined by THE OPEN COURT, does not sever "the universal aim of the world from the life-aim of individual rational beings;"

nor does it teach that the purpose of life is some Utopia in the far distance where a universal happiness will be realized. The ethical import of life lies always in the present; its worth, its merit and strength are the work done in the present. It is undeniable that an increase of happiness, a progress of refinement, of culture, of comforts, and of civilization will accompany man's work. But this increase of refinement will at the same time increase sensitiveness, and many wants which are scarcely heeded at present, will, under other and more advanced conditions, cause pain. Progress will not lead to complete happiness or to a state of absolute perfection; happiness is too subjective and perfection an ideal that admits of constant improvement. Pleasure and pain are two correlative factors, which almost always have stood, and will stand, in the same ratio.

The effects of progress must not be conceived as the final realization of an undisturbed state of happiness. This would be standstill,—stagnation. The direction toward which evolution tends is not a goal which will ultimately be reached. It is a direction toward improvement which does not admit of absolute consummation. Therefore the criticism offered on page 1380 of THE OPEN COURT, that the single individuals are considered merely as manure for the fields of universal history, may be applicable to Condorcet and others who believe in a final state of perfection in which the cup of bliss is preserved for the few elect who happen to live in the ages of a dim future. Meliorism recognizes the entire and full presence of the All in all generations; and the objection being made that the present generation toils while future generations will reap the benefit of its work, we answer that the present generation enjoys the benefit of the labor of former generations; and these former generations are not strangers to the present generation, but their ancestors, just as future generations will be their descendants; or, expressed in other terms, the present generation is the continuance of former generations and will continue to exist in future generations. Monism teaches the unity of mankind with regard to the different ages also.

The unity of mankind explains the seeming injustice and cruelty of the order of nature (or if you prefer of God), that children have to bear the sins of their fathers into the third and fourth generation. But on the other hand, it is promised that they shall inherit their blessings into the thousandth generation.

In this idea of the unity of mankind we find the explanation of the immanent immortality taught by Monism. The continuance of life beyond the death of the individual in the work performed during life and especially in our children is no mere sentimentality but a powerful truth which in the system of Monism



and Meliorism finds a prominent place as a fundamental religious truth.

The God of Monism is a living presence although he is no longer recognized as an ego like ourselves with successive states of consciousness. Taking this ground, Monism is not driven to the alternative of accepting either horn of the dilemma: The order of the world is either the work of a personal God or the fortuitous result in the play of blind forces. According to our view God is the omnipresent order of the Cosmos, but he is immanent and not transcendent.

Monism affords a basis for a religion which can satisfy both the heart and the head. The most radical free thought and the most rigid investigations of science cannot be injurious to religion; they will prove salutary by removing erroneous conceptions, thus purifying and elevating our religious faith and ethical aspirations.

P. C.

#### DEATH AND LIFE.

BY GEORG VON GIZYCKI.

Translated from the German by *mupe*.

"Du hast Unsterblichkeit im Sinn;  
Kannst du uns deine Gründe nennen?"  
Gar wohl! Der Hauptgrund liegt darin,  
Dass wir sie nicht entbehren können.—*Goethe*.

It is not right to represent death as something fearful and to increase the inborn dread of dissolution by poetic fictions. Would it really be better if there were no death? Let us suppose that man lived forever. Mankind would soon have multiplied to such an extent that further growth would be fatal. No children could be born, and there would be only grown persons in the world. All family life, all the happiness that man finds in the pleasures of home, would be at an end. Would that be a desirable state of affairs? "Life," says Goethe, "is the most beautiful invention of Nature, and death is her device for having much life." And a priest of the Order of Jesus exclaims: "Truly the coffin conditions the cradle, and we might almost affirm that from death springs the buoyant vigorous life that unceasingly pulses through the veins of the human race."

Ludwig Feuerbach, the "atheist," imbued with love, and hope, and faith in humanity, says the same. When you look into the happy eye of your child, so bright, so clear, and so joyous, "as though the world were of to-day," then think that only at the cost of death has this been won. The love of wife and child is not too dearly paid with death. And life in itself is worth that death be given for it. It was for this reason that the ancient Greeks pictured nothing sorrowful and gloomy upon the tombs of the dead, but the happiness and joy of life.

\* "You've immortality in mind;  
Can you your reason give?"  
The most important reason is,  
We can't without it live.

The great physician and philanthropist, Hufeland, says: "How greatly do they deceive themselves who believe that by refusing to entertain the thought of dissolution they find a protection against the horror of death. Ere they are aware of it, in the midst of light-hearted pleasure, that thought will overtake them and the more unaccustomed they have made it, the more fearfully will it crush their blithesome hearts. I can call him alone happy who has brought himself to think of death in the very midst of merry-making without being disturbed by the thought; and my experience teaches me that by frequent communion with this idea and by chastening the forms in which it appears to us, we may accustom ourselves to regard it with extraordinary indifference. \* \* \* He who no longer fears death, alone is free in life; there is no longer anything that can fetter him, can make unhappy, or render ill at ease. His soul becomes imbued with lofty and unconquerable purpose, inspiring the very springs of life, and he has found a certain means for putting away the thought of his dreaded foe."

Wer dem Tode in's Angesicht schauen kann,  
Der allein ist ein freier Mann.—*Schiller*.

[Who death in the face unflinching can see,  
He alone is a man and free.]

With overpowering reality, in the story of "The Death of Iwan Ilitsch," has Count Leo Tolstoi portrayed the truth, that only the person who from early years has prepared the way for death, dare hope to find joy in life. Much that he there pictures he had himself experienced, as his "Confessions" show. He numbered nearly fifty years when the thought of death came upon him with fearful force and almost irresistibly drove him to suicide.

"The terror of that darkness," says Tolstoi, "was indeed too great, and I longed to rid myself of it at once, longed to break these fetters by a ball or a rope. Long, long ago, was the tale told of the traveler in the desert that fell into the well. Below the serpent, death, awaiting my fall to rend me to pieces; I cling to a branch, and cannot understand why this anguish has taken possession of me. And that honey that lay within my grasp, that honey that I have sucked to my delight—no longer gives me joy; but the white and the black mice gnaw, day and night, the branch to which I cling. Plainly I see the serpent—and the honey is no longer sweet to me. The former deceit of the pleasures of life that blinded in my eyes the terrors of this serpent, will delude me no more. One thing I see—that unavoidable serpent and the mice,—and I cannot turn my eyes from them."

So spake the great Russian poet, that too late in life became familiar with thoughts of death. Let us therefore in due time hearken to the warning cry of Abraham a Sancta Clara: "O man, let it be told thee,



let it be mourned to thee, cry it out and write it out to every one, and everywhere: We must die, not perhaps, but surely. When die is uncertain, how die is uncertain, where die is uncertain, but die is certain."

To die is certain. Yet one consolation remains to us, even though death be truly the end of all, though it be our real consummation.

Has not every period of life in itself a value? and will this be lessened thereby, that each of these comes to its end? The life of a child has not merely a value as a period of preparation for the life of the grown person, a means to an end, but it has in itself a peculiar worth of its own. When the happy life of a child is brought to an end, we mourn it because we would gladly have seen that life continued; yet it has not for that reason been in vain, for in every moment of its existence it had a value of its own. And when a person has passed through the period of childhood, he is not wont, in so far as his new stage of life is also pleasant to him, to mourn over the destruction of the former period. The life of the young man and the young woman has a worth peculiar to itself. And so the man and the woman do not lament that their former life is past, when they feel happy in their present one. And, further, even the life of the aged man and of the aged woman has its peculiar worth—although this does not exclude the truth that one period in life has a higher worth than another. The normal period of old age is not one of ailment; but it is a period in which the charm of life gradually passes and the need of rest enters.

If we consider the matter in a reasonable light, we shall not have reason to lament, but we will recognize it as an harmonious and satisfactory arrangement. From the fact that a thing will not last forever, it does not follow that it has no value: it has had its worth so long as it lasted. It is not an endless continuance of individual life that we wish, but a rejuvenation of life by the appearance of new beings, a recommencement of the rhythm of childhood, youth, manhood, age, and death—as it actually exists in nature.

What would most people desire if they could determine their fate? To become a child again, and then a young man or young woman, and then a man or a woman. But we would not live our own life over again, but a different one. You have, then, what you want, if you but abandon your selfish longing—if in your thought and feeling you become one with humanity.

#### THE PSYCHOLOGY OF THE CELL.\*

##### I. M. CH. RICHTER'S CRITICISM.

At the beginning of his essay upon the Psychic Life of Micro-Organisms (*Revue Philosophique*), M. Binet expresses himself as follows: "In the lower beings that represent the simplest forms of

life, we find manifestations of an intelligence which greatly transcends the phenomena of cellular irritability. Thus even on the very lowest rounds of the ladder of life, psychic manifestations are very much more complex than is usually believed, and the conception of cellular psychology which some very recent authors have formed, seems to me a very crude analysis of the most delicate of phenomena."

As I have upheld in my *Essai de Psychologie Générale*, and in some measure—however little—developed this admittedly old idea, that cellular irritability is the beginning of psychical activity, I request the permission to speak in defence of an opinion so roughly handled by M. Binet.

Now, it appears to me that M. Binet has allowed himself to become involved in illusion respecting the word *cellule*. A cell, in the eyes of the embryologist and the morphologist, has a well-defined meaning. But M. Binet does not seem to have comprehended the fact, that for the physiologist and the psychologist, the essential condition of cellular unity is homogeneity. It is possible that the infusoria, the strange story of whose life M. Binet relates to us, are single-celled organisms. I am in no wise qualified to decide as to this; but whether a single cell, or a group of cells, it matters little, in my opinion, provided the single cell is differentiated to the same degree that it would be if composed of several cells not homogeneous.

I appeal to M. Binet himself and to the cuts of his essay. When he shows us an *Englena* with eyes, œsophagus, mouth, contractile vesicle, contractile reservoir (fig. 6); when he carefully describes the shape of the flagellum, the nettle-like tentacles, the tongue-shaped organs, the ocular spots, the trichocysts, and the peristome; when he assumes special *nerveous centres* endowed with various attributes (p. 1141); he cannot induce us to admit that the psychology of these complicated organisms is the same as the psychology of the simple cell. I repeat, it is quite immaterial to me that people affirm by the authority of embryology that this or that is a single cell. If that *cellule* have ocular organs, a nervous system, a mouth, an œsophagus, and a heart, I shall, despite any and every hypothesis of the embryologists, refuse to regard it as being physiologically a homogeneous cell, as is, for example, a muscular fibre.

The size will not affect the matter at all. The same desires, says Montaigne, stir mite and elephant alike. The psychic life of the bee is as complex as that of the whale, and if a microscopic infusory possess eyes, mouth, prickles, and heart, it evidently possesses them in order that it may make use of them, and accordingly I shall treat it as a complex organism upon the same ground that I do a snail or a grasshopper. Embryology will not force me to the extremity of regarding such a creature as a simple organism because it is derived from a single cell.

In my opinion, therefore, it is that unfortunate word *unicellular*, that has made M. Binet believe that, Infusoria being unicellular organisms, the elementary psychology of the *cellule* applied to them. M. Binet has allowed himself to be deceived by a word—a thing that often happens in matters of science. For my own part, in order to avoid any confusion, I would like to say that the elementary psychology of the *cellule* ought not by rights to be applied to anything except to homogeneous *cellules*; for the psychology that has to do with complex cells—real organisms with organs and apparatus of their own—must certainly be as complex as the psychology of animals wholly differentiated.

The laws of irritability act in all their simplicity and rigor among simple beings. In fact, in every instance of investigation into the nature of simple organisms, or such as appear simple by the optical instruments at our disposal (a fact that does not always rigorously prove their simplicity), as bacteria, for example,—we find that chemical irritability is the apparently sole law of movement. What else, indeed, are the movements of those bacteria so

\* Correspondence between M. CH. RICHTER and M. ALFRED BINET upon the Psychic Life of Micro-Organisms. Translated from the *Revue Philosophique* by *μυσκ*.



thoroughly studied by M. Engelmann, if not an affinity for oxygen, in other words the simplest and most universal chemical phenomenon in all nature?

And so the critique of M. Binet will not stand. On the contrary, it seems to be well established that complex organisms, whether single-celled or many-celled, have a psychology corresponding in complexity to the degree of differentiation their organs have attained, while simple beings—and they are simple only if homogeneous—have a simple psychology which is probably contained in the laws of Irritability only. CH. RICHEL.

## II. ANSWER TO M. CH. RICHEL.

A great difference of opinion exists between M. Richet and myself. In his *Essai de Psychologie Générale*, M. Richet has written the following lines: "There exist simple organisms that seem to be nothing more than a homogeneous assemblage of irritable cellules. Motory reaction, consequent upon irritation from without, constitutes their life of relation. Irritability is their life, solely and entirely, but at the same time this is, in effect, a psychical life; so that cellular irritability may be regarded as elementary psychic life."

Consequently, as may have been seen from the perusal of my essay, I have arrived at a conclusion diametrically the opposite of the above. I have shown that among the animal and vegetable micro-organisms, manifestations of psychic life are met with, which in point of complexity greatly transcend the phenomena of cellular irritability.

In giving the psychology of these microscopic creatures the name of cellular psychology, I have not invented a new term, nor given a new sense to an old one. Quite some time before me, M. Hæckel had made a study of cellular psychology and his investigations, like my own, were based entirely upon the observation of animal and vegetable micro-organisms. Furthermore, micro-organisms being represented by a single cellule (and this doctrine is now universally accepted), the study of their psychical manifestations can, in my opinion, with perfect propriety be styled cellular psychology.

M. Richet takes exception to the use of the latter expression; but he does so while substituting for the old definition of the word cell, one quite his own. To him, a micro-organism like the Euglena, which has an eye, a mouth, an æsophagus, and a contractile vesicle, would not be a cellule. To admit the latter view, means, in his own words, to become involved in illusion respecting the word cellule. In our judgment, the question here is by no means one of optical illusion, but one of verbal definition. What, accordingly, is a cellule? "For the physiologist and psychologist," says M. Richet, "the cellule has not a distinct entity, or, at least, that entity, that unity, lacks an essential condition, namely, homogeneity."

To M. Richet, the cellule is a homogeneous body; a body that comprises differentiated parts is not a cellule.

It is unnecessary to remark upon how far the latter conception of a cellule diverges from the usual and commonly accepted definition of the word. Hitherto, scientists have understood by the term cellule, a body made up of the union of two essential parts, a quantity of protoplasm and a nucleus. The scientific world argues as to whether elementary forms exist which do not contain a nucleus and which should be termed *cytodes*,\* as proposed by M. Hæckel. The careful observation of micro-organisms by means of perfected technical processes has enabled us to discover hundreds of nuclei in the very cellules which M. Hæckel classed among the cytodes. Such is notably the case with many algae and lower-class fungi. The Moners—a group of micro-organisms believed to have no nucleus—grow numerically less and less, in proportion as they

are more carefully studied. It is true, we are now no more able than formerly, to show the presence of a nucleus in bacteria; but that does not prove that the bacteria have none. Our knowledge of the morphology of microscopic organisms is wholly relative, and depends upon the degree of perfection attained by technical science. When we bear in mind that the presence of a nucleus remained for a long time unobserved in organisms several hundred times larger than the bacteria, we ought not to be surprised at having been unable to discover one in these smaller creatures.

We may even go further, and question the material existence of a body formed solely of protoplasm, basing our opinion upon the experiments of Gruber, Nussbaum, and Balbiani, as reported in my article, and upon the more recent observations of Klebs which are in perfect agreement with the results of the investigators just cited. All have shown that the nucleus is an element essential to the life of the cellule, and that, when a fragment of a cellular body stripped of a nucleus is procured by artificial section, this fragment does not reproduce the organs it lost by being severed; it does not heal its wound, it does not refashion its form, and, what is more, at the end of a certain time its protoplasm, being withdrawn from the influence of the nucleus, suffers complete disorganization. These experiments were made not only upon animal micro-organisms, but upon vegetable cells also. They prove the primordial importance of the nucleus in the cellule and thereby render doubtful the existence of cellules deprived of a nucleus.

Since every cellule contains, in all likelihood, two distinct differentiated elements, the protoplasm and the nucleus, which have neither the same physical structure, nor the same chemical nature, nor the same physiological functions, we may understand that it would be exceedingly difficult to name a single instance of a simple homogeneous cellule. It is the proper place to add that neither protoplasm nor nucleus, each regarded by itself, are homogeneous substances. It is unnecessary to enumerate all the investigations that have been made upon this point. Let us call to mind merely the fact that from the morphological point of view protoplasm appears to be composed of two substances, a homogeneous semi-liquid substance and a firmer substance exhibiting, as authorities upon the subject say, sometimes the form of detached filaments and at others a structure of a reticulate character.

At the present day, accordingly, it is impossible to allow that homogeneous cellules exist, without falling back to Dujardin's theory of the sarcode. There are really no simple organisms, and such as appear so are merely imperfectly known.

However, it will not do perhaps to take literally the terms employed by M. Richet. When he speaks of homogeneous cellules it is possible that he wishes to speak merely of cellules in which, aside from the nucleus, no other differentiated organ is to be found.

Now, it is quite important to note that, even of organisms made up simply of protoplasm and nucleus, the psychology is extremely complicated, and is not contained exclusively in the laws of irritability.

The *Vampyrella Spirogyra*, classed by Zopf among the animal-fungi, and the place of which is still so little known, is a being the body of which is composed of protoplasm and nucleus simply. So far no other differentiated organ has been found in this creature, except from one to four contractile vesicles. Employing the terminology of M. Richet, perhaps we ought to call this being a simple cellule; yet this simple cellule has quite a complicated psychology: it exercises choice in the selection of its food, attacking *Spirogyra* only.

The same is the case with the *Monas amyli*, which, having neither eye nor mouth, represents to M. Richet a simple cellule; still, the *Monas amyli* exercises choice in selecting its food, as it feeds exclusively on grains of starch.

The structural elements of the tissues do not differ from the micro-organisms whose psychological history I have endeavored to

\* From *kivros*, a hollow vessel.



unfold, so much as might be imagined; they show the same powers of selection, and on this point I shall only instance the epithelial cells of the intestines or the phagocyte cells, the attributes of which I have described in my essay, and which are able to discriminate, for instance, between bits of fat and particles of coal, absorbing the former and leaving the latter.

I repeat it, therefore, no living cellule, strictly so defined, is a simple cellule, and I do not think that M. Richet has advanced a fitting illustration in mentioning the muscular cell, for the latter is one of the most highly differentiated that there are.

I cannot imagine, accordingly, to what elements, to what beings clearly defined, we could apply the simple-cellular psychology reduced to mere irritability, that M. Richet asks me to distinguish from the complex-cellular psychology, which would be exclusively reserved for the animal and vegetable micro-organisms that I have described.

It appears to me that this simple-cellular psychology lacks a foundation; it is a conception of the mind, rather than a study based upon observed facts.

In M. Richet's book I find no indication as to what sort of beings he means to distinguish thereby. He contents himself (pp. 20 and 27) with speaking of simple beings without otherwise defining them. Towards the close of his remarks upon my work, M. Richet cites an instance of simple beings, viz., the bacteria; in his judgment, chemical irritability appears to be the sole law conditioning their movements. What are the movements of the bacteria, he asks, if not an affinity for oxygen; in other words, the simplest and most universal chemical phenomenon that exists in all nature?

In our judgment the latter phrase is to be taken metaphorically. We believe that as yet no one has demonstrated that the movements of a living being, in moving towards a distant object, however simple they may be, can be explained merely by a chemical affinity acting between that being and that object. It is certainly not chemical affinity that is acting, but much rather a physiological need.

In fine, let me conclude by saying that homogeneous beings having a simple psychology do not exist, and that wherever observation leads us, we see complex cellules with a complex psychology.

The term irritability, though now so long in use, does not seem to me to be one of the best, inasmuch as it is extremely vague. If it is to signify merely the property of responding to an excitation, it is plain that under that definition we may classify the highest form of psychology,—for all psychological phenomena are responses to excitations; on the other hand, if its sense be limited to mean a change in the form of a cellule when subjected to an excitation, it at once becomes evident that irritability cannot represent the psychology of any living creature sufficiently known and studied.

Psychic life, like its substratum, living matter, is, when closely studied, an exceedingly complex subject. This fact is, with me, a profound conviction; it rests, not upon abstract ideas and methods, but upon the observations that I have given, observations that are not founded upon my own personal authority alone, but which are drawn from the highest authorities, and most of which I have been able to verify with my own eyes.

ALFRED BINET.

## CORRESPONDENCE.

### MRS. M. M. E. ON MARRIAGE TIME-CONTRACTS.

To the Editor of THE OPEN COURT:—

It seems well to notice the criticism by Mrs. M. M. E. of my proposition, not because its points have not been considered and provided for in the latter, but because it represents a good deal of current thought on the subject, not only among a certain class of women, but also on the part of a few men. The views of this criticism

are both one-sided, and also self-contradictory, and they only confirm the statement with which I opened the article referred to, that it is difficult indeed to speak or think rationally on the subject.

In the first place, there are five conditions to be satisfied by a sufficient matrimonial system, only one of which is considered by Mrs. M. M. E. For the other four she makes no provision. She thinks only of the good wife whom a "recreant" husband desires to leave. But what of the good wife who wishes to be rid of a brutal husband; and of the good husband who has nursed a viper in his bosom; or of the two people who mutually desire separation; or finally of the good man whom a woman wishes to desert? The good man in the last case would be apt to let her go, so that this case reinforces the other three in favor of separation, where but the one case which is described by Mrs. M. M. E., seems to render it a hardship. If the woman in this case were as wise as the man in the corresponding one, she also would bid her "recreant" spouse god-speed, and straightway look for a better. But it must be remembered that few whims and caprices survive five years, and that a conclusion reached after so long an experience is apt to be warranted by the circumstances, even in the mind of a man. It must be remembered also that neither party can do it again. Lastly, if the man marries again, as he probably would, one woman would be out of the field, as before.

When we come to Mrs. M. M. E.'s remedy, we find the usual inconsistency of this one-sided view. It is nothing less than "to make divorce optional;" in other words, to abolish all legal safeguards to the family. From being a defender of the family against the changeable temper of the man she begins to doubt whether the family is not the enemy of progress. Thus it is that the attempt to harmonize these two mutually exclusive extremes is often made. The fact is, that under "optional divorce" the situation of women would be much worse than under the time-contract system which I have suggested. It would suit the convenience of men, if they had nothing but their temporary convenience in view; but for most women, it would be ruinous. In view of this surrender of the whole case by Mrs. M. M. E., it seems hardly worth while to discuss the question of support which she raises. She does not mean, I suppose, that a woman should have alimony every time she made a voluntary divorce. This mode of accumulating a fortune is not entirely unknown however, as it may be remembered that a case of this kind came to light in New York City a few years ago.

There is a class of women who forget that they are, like men, subject to the vicissitudes of natural law, and that like men they must suffer more or less, and that nobody is to blame. Men find it necessary to avoid giving offence to powerful rivals, to submit to stronger forces, and to endeavor to succeed in their careers by attention to the nature and character of the men with whom they have to deal. The women who pursue the same policy in their leading occupation, matrimony, generally meet with success in it; but if after a fair trial they find the conditions too severe they ought, like men, to have the opportunity to emigrate. If a woman is incapable of a reasonable amount of child-bearing, she is in the position of the man who is incapable of making a living for a family, with the advantage over the man, according to the five years contract, that she can escape from her difficult position. There is an evident indication in the language of my critic of a misapprehension, common with a limited class of women, that the support of a family is a sort of holiday amusement for a man, while the bearing and care of children is a burden grievous to be borne by women. It is probable, however, that the pleasures and pains of family life are really very equally borne by the sexes, or would be were the natural terms of the contract observed, as I have stated them. Each pays for what he or she gets, and is contented and happy in so doing, provided they do not take too much thought for "untoward events which never happen."



The practical solution of the question is to be found in a system which will give the greatest amount of individual freedom, consistently with the two necessary conditions of all intersex contracts; viz., support for the women and children and definite paternity for the man. The conditions of this contract are fair, and should be enforced so long as the contract lasts; but opportunity should be given to dissolve it in case its conditions become unbearable or impossible. All other considerations are issues aside of this leading proposition. If the divorce laws and courts could meet the case they would be sufficient; but it appears to me that they cannot. For ordinary misdeameanants they are sufficient, but for the best people, against whom no infraction of law can be alleged, they are useless. The causes of marital unhappiness come under two classes, viz.: pure cussedness and natural incongruity. For the former our laws furnish a partial remedy; for the latter none at all. It is my conviction that a time-contract system, together with divorce courts and laws, will be ultimately adopted, although the details may differ from those which I have suggested.

I suspect that we will never return to the system of "matriarchy," lauded by Mrs. Mona Caird, at a safe distance of time and space, unless in the case of an adventurous few, who may have to learn over again what experience has already taught. Matriarchy was, so far as can be determined, simply a prostitution in which the temper of the people did not require the mother to conceal the evidence of her position. Instead of foeticide, female infanticide was practiced, and so was established a system which has its legitimate successor in the prostitution of modern ages. E. D. COPE.

#### NOTES.

Mr. John W. Chadwick, in his printed sermon upon "Robert Elsmere," says: "To reconceive the Universe and Man and God,—this is a much greater, grander task than 'to reconceive the Christ.' But this and no other is the task appointed for our time. And the means for its accomplishment are barely mentioned in the pages of Mrs. Ward's delightful and inspiring book. Literature and philosophy and history are her intellectual lines, and they would seem to have fallen for her in pleasant places. But there is another line. It is that of science. And it is mainly upon this that those are working who are endeavoring successfully to reconceive the Universe and Man and God."

We are in receipt of an excellent little book, "Elementary Text Book of Physiography," by W. Mawer, F. G. S. London: John Marshall & Co. Mr. Mawer is the editor of *Life Lore*, which has been started of late and, as before stated in THE OPEN COURT, contains most interesting articles on the many topics of natural science.

In answer to several queries respecting the translation of Kant by Max Müller, we will state that the publishers are Longmans, Green & Co. of London. Price, with Introduction by Noiré, occupying a separate volume, \$8.00.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXVIII

"No one can entirely free himself from the ideas of his circle," replied the Professor, courteously. "A century ago there was the same tormenting eagerness about rank and social precedence among the citizens. With us it has become different since our life has been pervaded with a strong intellectual element. In the future, even at Court, people will laugh at these things as antiquated frippery."

\* Translation copyrighted.

The Princess raised her little finger threateningly. "Mr. Werner, that was spoken again as the learned man: it was not polite. For, though we move entirely in the track of fashion and of Court manners, we do not remain behind those from whom we are socially separated."

"Perhaps it is because you separate yourselves," said the Professor. "The warmest pulse of our nation has always been in the middle class; from them education and new ideas have gradually spread to the princes and the people. Even the peculiarities and weaknesses of the civilization of a period rise to the throne generally half a century after the educated middle class of the nation have suffered from them, and are only just appreciated there when they are already giving way among the people to some new tendency of the time. Therefore, it is often difficult for the Sovereign and his people to understand each other."

"Oh, how right you are!" exclaimed the Princess, drawing nearer to him. "It is the fate of princes, the misfortune of us all, that the most valuable culture of our time seldom exercises a good influence upon us. There is a want of fresh air in the atmosphere in which we live, we are all weak and sickly. All who approach near us must accommodate themselves to our prejudices, and we accustom ourselves to regard men according to the rules which we have devised for them ourselves. Have you ever before been brought into contact with any of our great rulers?"

"No," replied the Professor.

"Have you never sent what you have written to any of them?"

"I have had no occasion to do so," replied the Professor.

"Then you are unacquainted with the scale of favors that are shown to you learned gentlemen. Now, I must repay you for the delightful instruction you have given me about ancient vases, by giving you some instruction in return. Sit down opposite to me. You are now my pupil." The Princess leaned back in her chair, and assumed a serious expression. "We assume that you are pious and good, and look up respectfully to the handle of the Imperial globe that we hold in our hand. Your first presentation comes,—a handsome book; the title-page is opened: 'Upon antique vases.' Hm—who is the man? One informs oneself a little about the fellow, and it is well if your name is already to be found in print. Thereupon follows an answer of acknowledgment from the Council, short variations according to formula No. 1. Your second presentation makes its appearance: a beautiful binding, an agreeable impression, therefore a warmer acknowledgment in courteous expressions, according to formula No. 2. A third presentation: again a large volume, the gilt edges are unimpeachable; the Council



take the book up and weigh it. If the author is a lesser light, he enters the class of gold breastpins; if he is worthy of a higher consideration, from a well-known name, and what is more effective with us, from a title, he reaches the sphere of orders. There are different classes of orders which are distributed among strangers, accurately according to their titles. But he who is persistent, and does not tire of showing fresh marks of respect, hops gradually, like the green frog, at intervals of years, to the highest rank."

"My kindest thanks for the instruction," replied the Professor. "I must be allowed in this case to take the Council under my protection. For what could the illustrious gentlemen do when they are overrun with such a multitude of indifferent presents?"

"It was a fair example," said the Princess, "of how beautifully we have arranged, in all directions, the steps to our favor. For the rest, we are, with respect to what we accord to people, not only civil, but economical. He who has no colored ribbons to give, finds himself greatly inconvenienced. But," continued she, in a changed tone, "in the same way our principal efforts in every undertaking are made with an eye to vain show and empty forms; and as hundreds are so weak and abject that they are attracted in this way, we think we can thus attach millions to us."

"Many small advantages may be obtained in this manner," replied the Professor; "but there is an error in your reasoning; he who tries to attach men to him by their weakness, vanity, and pride, does not gain the best part of their life. In quiet times this attraction is unnecessary, and in times of danger it has only the strength of a rope of sand."

The Princess nodded her head.

"We know that right well," she said, confidently; "and we do not feel comfortable and secure, in spite of the profuse distribution of honors. What I tell you would sound like high treason to my illustrious relatives, only because I express it, not because I think it. Do not consider me the black sheep of the flock; there are wiser people than I who in secret form the same judgment; but we cannot find our way out of the barrier, and we cling to it, although we know that the support is weak. For as the humming-bird gazes on the serpent, so do we view the prospect that the present age opens before us, with a shudder and helpless expectation." She rose. "But I am a woman, and have no right to speak with you upon these important subjects. When I feel uneasy I use the right of women—to complain—which I have done abundantly to you. For I have it at heart to please you, Mr. Werner. I wish you to consider me as a woman who deserves something better than complaisant words and polite nothings. Allow me often the pleasure of rectifying my judgment by yours."

She put out her hand to the learned man with hearty confidence. Werner bowed low, and left the room. The Princess looked after him with a pleased expression.

The Professor went fresh from the conversation to the pavilion, and told his wife all that had passed.

"I did not consider it possible," he exclaimed, "to find a woman of this rank with so liberal and high-minded an understanding of her position. What was most charming was her animated and unaffected manner—a charm that made itself felt at every moment, both in voice and movement. I am enchanted with the little lady. I will immediately prepare the book that she wished for."

He seated himself at the table, marked out passages, and wrote remarks on small strips of paper, which he laid within.

Ilse was sitting by the window, looking at her husband in astonishment. It was no wonder that the Princess pleased him. Ilse herself had with the quick intuition of a woman perceived her power of attraction. Here was a soul that, amidst the constraint of her Court, longed for intercourse with a man of liberal culture; here was a powerful mind that rose above the prejudices of rank,—clever, light of fancy, and quick of comprehension. Now this woman had found a man to whom she could look up, and with her little hands she cast her fetters about him.

The room was becoming dark. Felix was still sitting writing and making notes. The rays of the evening sun shone upon his head, but the dark shadow of the unfamiliar room hovered over Ilse. She rose from her chair behind her husband.

"He is good to me," she said to herself; "he loves me, as one always does the person whom one has taken into confidence. He is not like other men; he will not allow a stranger to take away my rights; he is innocent as a child, and does not perceive the danger that threatens him and me. Take care, Ilse, not to awake the night-wanderer. I, fool! What right have I to complain if another should benefit by his rich mind? Have I not enough for myself in the treasure of his life? No," she exclaimed, and threw her arms round her husband's neck; "you belong to me, and I will have you entirely."

The Professor raised his head, and his look of astonishment brought Ilse to her senses.

"Forgive me," she said, feebly; "I was thinking."

"What is the matter, Ilse?" he asked, kindly; "your cheeks are hot. Are you ill?"

"It will pass over; have patience with me."

The Professor left his book, and occupied himself anxiously about his wife.

"Open the window," she said softly. "The air of the close room feels heavy to me."



He was so tenderly concerned about her that she again looked cheerfully at him.

"It was a foolish weakness, Felix; it has passed away."

#### CHAPTER XXIX.

##### TWO NEW GUESTS.

The Professor was standing with the Chamberlain and the Sovereign in the study. The latter held in his hand the memorial that Werner had prepared respecting the new catalogue of the museum.

"Only now can I form an estimate concerning the extent of the catalogue which you consider necessary. I am ready to agree to your proposals, if you will bind yourself to undertake the superintendence of the new arrangement and of the catalogue. If you cannot do us this service, everything must remain as before, for only the great confidence which I have in you, and the wish to keep you here, will induce me to make the necessary sacrifice. You see I make the undertaking dependent upon the degree of inclination which you yourself have for this work."

The Professor replied that his presence might be desirable for the introductory arrangements, and that he was ready to spend some weeks upon it. Afterwards, it would be sufficient if from time to time he examined the progress of the work.

"With this I shall be content for the present," said the Sovereign, after a pause; "our contract is, then, concluded. But I see that it will be necessary to get some one who will carry out the details under your guidance. Will the Curator be able to it?"

The Professor thought not.

"And could you propose any one?"

The Professor thought over the old members of his circle.

But the proper man at once occurred to the Chamberlain.

"Would not Magister Knips do for this work?"

"Just the man," said the Professor; "industry, knowledge, everything about him, makes him peculiarly adapted for it. I believe that he may be had at once. I can answer for his trustworthiness with respect to the care of objects of value. But I cannot take this responsibility upon me without disclosing to your Highness that once in his life, from want of caution, he was implicated in a disagreeable affair, that lessened the confidence, not only of myself, but of many of his acquaintances."

The Professor then related, with forbearance towards all concerned, the history of the forged parchment sheet of Tacitus.

The Sovereign listened with interest, and pondered.

"With respect to the safety of the collection, the

old catalogue will allow of constant control. You consider the Magister innocent of this deception?"

"I do consider him so," replied the learned man.

"Then I request you to write him."

Some days afterwards Magister Knips entered the capital. He carried his travelling-bag and hat-box to an unpretending inn, at once clad himself in the dress which he had always spoken of to his mother as his livery, and sought the Professor at the Pavilion. Gabriel saw the figure in the distance passing through the blooming shrubs, his head on his shoulder and his hat in his hand; for Knips considered it proper to uncover his head in the sacred precincts of the castle, and entered like a walking bow into the distinguished horizon. The Professor could not conceal a smile when he saw the Magister in courtly attire, polished and fragrant, standing before him, with two low obeisances.

"It was the Chamberlain who proposed you for this occupation, and I did not object to it. For on the supposition that you will be suitably remunerated, an opportunity for work is afforded which may perhaps raise you for good above your insignificant occupation, and which, if dutifully carried out, will entitle you not only to our warmest thanks, but to those of the whole learned world. Your conduct here may therefore be decisive for the rest of your life. Remember, also, every hour, Mr. Magister, that you have to show conscientiousness and fidelity, not only to learning, but also with respect to the property of the prince who has called you to this post of confidence."

"When I read the letter of the right honorable and most highly respected Professor," answered Knips, "I did not doubt that his kind intentions were to give me the opportunity of assuming a new character in life. Therefore, upon entering the portals of an unknown career, I entreat with deep emotion, above all, for the continuation of your good opinion, which I trust to be able to deserve by faithful obedience."

"Very well then," concluded the Professor; "announce yourself to the Chamberlain."

The day following Knips was sitting before a row of antique lamps, with brown Holland sleeves to preserve his dress coat, his pen behind his ear, surrounded by the books of the castle library; he opened them, compared, wrote, and was as active in his work as if he had all his life been a clerk in a bric-a-brac establishment of ancient Rome.

The Chamberlain announced before dinner, with satisfaction, to the Hereditary Prince, "Magister Knips has come;" and the Prince repeated to his sister, "The wise Knips is here."

"Ah, the Magister!" said the father, with equal good humor.

(To be continued.)



## BOOK REVIEWS.

PHILOSOPHIA ULTIMA; or, Science of the Sciences. Vol. I. By Charles Woodruff Shields, D.D., LL.D. New York: 1888. Charles Scribner's Sons. Chicago: A. C. McClurg & Co.

Professor Woodruff Shields proposes in this volume an academic study of "Christian Science," in which he attempts "to blend more harmoniously together those two general bodies of learning, the scientific and the religious." It is the same object as that of *THE OPEN COURT*, but how different are the methods! The Professor has not yet dropped his theological view that "the personality of a first cause is at once conceivable, cognizable, and scientifically probable." He believes in a "perfect reconcilableness of the whole theology and theodicy with any true metaphysical and ethical theory of the world."

We heartily sympathize with the endeavors of the author to reconcile Religion with Science. He correctly states: "Were true science combined with false religion, or the true religion with false science, the only result would be their mutual degradation and degeneracy." Lowell says:

Science was Faith once; Faith were science now,  
Would she but lay her bow and arrows by  
And arm her with the weapons of the time.

An example from astronomy illustrates the professor's method. He says: "In the starry heavens the scientific observer discovers illimitable matter and force disposed throughout space and time under fixed mechanical laws; in other words, a department of physics; while the religious observer beholds the immensity, eternity, omnipotence, and wisdom of the one true God; in a word, a department of theology. Now, these different aspects of the same phenomena, these almost opposite views of the same facts, are not only equally true, but equally essential to make up the whole truth in regard to those facts. The one has been most surely discovered by man, and the other as certainly revealed by God, and neither can be surrendered but at the sacrifice or peril of both."

The religious emotion which accompanies our knowledge of the grandeur and harmonious order of the starry heavens, originates when we discover the omnipresence of law everywhere, and when we are impressed with the necessity that we ourselves, being a part of the All, must be obedient to the laws of the universe. The religion of *THE OPEN COURT* is in no need of an express divine revelation which is different from the revelations of Nature.

RUBAIYAT OF OMAR KHAYYAM. In English verse by Edward Fitzgerald. Boston: Houghton, Mifflin & Co.

This remarkable Persian poem has already attained that high and secure reputation which places it beyond the need of the critic's word. The publishers have met a real need and increasing demand for this work by printing it in its present inexpensive and available form, the poem being known to most of us before only in the *édition de luxe*, made doubly interesting and valuable by Veder's illustrations. We have here a biographical preface of Khayyam, and the poem in two translations, one the text of the fourth edition, followed by that of the first, with notes showing the translator's indebtedness to the original.

C. F. W.

THE VIKING. *Elyon A. Barron*. Chicago: A. C. McClurg & Co.

Mr. Barron's reputation and merit as a play-writer is already fairly established and in *Viking* we have a more ambitious literary attempt than he has before given us. This play, written in blank verse, finds its subject in the vast and enticing region of Northern legends. It is well constructed in plot, and has a touch of romantic sentiment in it that lifts it entirely out of the commonplace and worthily sustains the reader's interest to the end. Interest in this little drama is further enhanced by a preface written by Lawrence Barrett, who welcomes Mr. Barron to the company of dramatic writers, and trusts his latest work will secure sufficient attention to warrant its production on the stage.

C. F. W.

A MAN STORY. *E. W. Howe*. Boston: Ticknor & Co.

A peculiar title leads the way to a peculiar story in Mr. Howe's latest work, which is neither so powerful a piece of work nor so well executed as that on which his reputation as a novelist was first established, his remarkable "Story of a Country Town." A Man Story deals with the fortunes of a man who, supposing he is legally freed from the bonds of an unhappy marriage contracted in early manhood, marries a second time a woman in every way suited to him, with whom he lives happily. Then he discovers that the divorce from his first wife is invalid; he attempts to keep the peace and preserve the happiness of the second by dividing his time between the places where the two women live, on the convenient subterfuge of business. The whole truth leaks out at last, and a readjustment of their affairs between the three parties that is satisfactory to all concerned. The plot of the story is not the most pleasing, the literary workmanship uneven, and Mr. Tom's monologue, bearing always on one theme, very tiresome—Mr. Howe ought to compel himself to do more careful, worthy work than this.

C. F. W.

A HANDBOOK FOR PILGRIMS. Compiled by Mary B. Dimond. Chicago: A. C. McClurg & Co.

This little book, showing much daintiness and skill in the publisher's work, is also entitled "Thoughts by the Way," and is written, the title-page further describes, "for those who journey through this fair world on their way to one still fairer." Otherwise expressed, it is a collection of helpful extracts from scriptural and other sources of religious literature, gathered under such different headings, each intending to bear relation to the pilgrim's journey through life, as Morning, The Journey, The Rainy Day, The Day of Rest, Going Home, etc. The collection is a trifle pietistic in character and arrangement, but of sufficient merit to recommend it to many readers.

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THE OPEN COURT invites the deliberation and prudence of conservatism with the radicalism of undaunted progress. While the merits of the old creeds are fully appreciated, their errors are not overlooked. The ultimate consequences of the most radical thought are accepted, but care is taken to avoid the faults of a one-sided view.

## THE QUINTESSENCE OF RELIGION

is shown to be a truth. It is a scientific truth (a reality) which has been and will remain the basis of ethics. The Quintessence of Religion contains all that is good and true, elevating and comforting in the old religions. Superstitious notions are recognized as mere accidental features of which Religion can be purified without harm to the properly religious spirit.

This idea is,

FEARLESSLY AND WITHOUT RESERVATION OF ANY KIND,

presented in its various scientific aspects and in its deep significance to intellectual and emotional life. If fully grasped, it will be found to satisfy the yearnings of the heart as well as the requirements of the intellect.

Facts which seem to bear unfavorably on this solution of the religious problem are not shunned, but openly faced. Criticisms have been welcome, and will always receive due attention. The severest criticism, we trust, will serve only to elucidate the truth of the main idea propounded in THE OPEN COURT.

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P. O. DRAWER F.

CHICAGO, ILL.

FORMER CONTRIBUTIONS TO "THE OPEN COURT."

GEN. M. M. TRUMBULL.

In No. 25 Gen. Trumbull has an article on "The Value of Doubt in the Study of History." He shows the tendency of historic writing toward exaggeration and falsehood; and he advises teachers to strengthen the minds of pupils by the exercise of doubt. Much of the history of the late war as written by our famous generals is as fabulous as the legend of Romulus and Remus. It is written by men interested in their own story, and therefore it comes under the suspicion cast upon it by the ordinary rules of evidence. "This war history," says Gen. Trumbull, "is woven out of camp-fire yarns." "Like the feet of Chinese children," he says, "our minds were crippled in infancy, and many of them have been lame ever since. They are not as useful to us as they would have been if strengthened in infancy by the exercise of doubt."

GEORG VON GIZYCKI.

In Nos. 25 and 26 is presented a very scientific article entitled "Determinism versus Indeterminism," by Georg Von Gizycki, Professor of Philosophy at the University of Berlin. This is in answer to Professor William James of Harvard University, who, in a lecture published in the *Unitarian Review*, had maintained the doctrine of *indeterminism*. The whole inquiry relates to the Freedom of the Will, and the terms are thus explained:

"The question whether the actions of the will are phenomena which act in conformity to a law, admits of only two answers—yes and no.

The philosophic theory which holds that they do, has been called *Determinism*; that which says they do not is known as *Indeterminism*."

The argument, which is deeply philosophical throughout, and in some parts of it a demonstration, proceeds upon the theory that the human will is under the control of law, and that its actions are *determined* by necessity; that Freedom of the Will is never an accident, nor the offspring of caprice; that the reformation of an evil-doer is made by surrounding him with conditions whose laws will compel his will to act in the right way.

ERNST MACH.

Ernst Mach (Professor of Mechanics at the University of Prague, author of several works explanatory of the history and philosophy of mechanics, and the first authority in his branch) explains in his essay *Transformation and Adaptation in Scientific Thought*, (in Nos. 46 and 48), one of the most characteristic ideas of modern science—an idea that lies, so to speak, in the atmosphere. "Knowledge," he says, "is an expression of organic nature." The law of evolution, which is that of transformation and adaptation, applies to thoughts just as well as to individuals or any living organisms. A conflict between our customary train of thought and new events produces what is called the problem. By a subsequent adaptation of our thought to the enlarged field of observation the problem disappears and through this extension of our sphere of experience the growth of thought is possible. Thus the happiest ideas do not fall from heaven, they spring rather from notions already existing. From this standpoint the narrow conception of egotistic views disappears. "The person" is comparable to an indifferent and symbolical thread on which are strung the real pearls of life—the ideas that make up the changing content of consciousness. Humanity in its entirety is like a polyp plant; the material and organic bonds of union have been severed, but by this freedom of movement, the psychical connection of the whole has been attained in a much higher degree.

GUSTAV FREYTAG.

Commencing with No. 22 is a philosophic novel by Gustav Freytag. In this refined and interesting story the reader becomes acquainted with some strongly marked personalities, and hears from them some rich and rare philosophy. "What is the object of philosophy?" says Frau Rollmaus to the Professor.

"It endeavors to instruct men in the life of their own spirit, and thus to strengthen and improve them."

In the actions, conversation, and adventures of the characters we see this philosophy guiding, teaching and improving them and us. Here through the easy and pleasant method of novel reading we learn the secret inspiration which produces those wonderful phenomena, which hitherto have been considered the mysteries of life; here we see destiny directed and controlled by law, and all the phenomena of natural and physical life are comprehended as phases of one and the same. This monism or conception of the oneness of all life and all nature pervades all pages of this wonderful work of fiction.



# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 71. (VOL. II.—45.)

CHICAGO, JANUARY 3, 1889.

Two Dollars per Year.  
Single Copies, 10 cts.

## THE UNIVERSAL FAITH.

A MEMORIAL ADDRESS UPON MR. COURTLAND PALMER

BY T. B. WAKEMAN.

*Mr. President, Ladies, and Gentlemen:—*

One of the weightiest criticisms of our American life and institutions is reported by the late Hon. Elizur Wright, of Boston, from the lips of the poet Wordsworth. In a conversation in which reference had been made to the wonderful progress of our country in population, wealth, and material prosperity, the venerable poet replied: "All that amounts to little; what culture can you have in a country where there can be no class of men of wealth and leisure? With all your products you cannot produce a gentleman." \* Certainly, until some material change is made in our mode of life, which may relieve the great mass of our people from the practical slavery and limitations of business and professional life, one of the greatest acquisitions our country can have, ought to be the few men and women whose happy circumstances have freed them from the greatest evil of life,—the uncertainty of the fearful "struggle for existence."

We are here to cherish the memory and to extend the example and influence of one who was above all things an American Gentleman, and who because of that fact achieved, not only the existence of this Club, but the initiation of a new and a beneficial career, worthy of imitation in our Democratic Republic.

Repeatedly in his works, and especially in his lectures upon the "Aristocracy of Freethought," he has taught the chief use of wealth to be its lesson of how little enjoyment it gives by the satisfaction of individual wants, and how priceless is the blessed leisure which it brings, to accomplish the higher duties, and to lead the higher aspirations of our people. In his view the privilege of being a gentleman was a call, not simply to personal gratification,—as is too often the case,—but to a continuous and business-like devotion

\* The term *Gentleman* was evidently used by the Poet, and is used in this address, in the common acceptance of his day, *viz.*, as a person of good breeding, education, and culture, whose honorable birth and provision in life gave relief from the active following of any business or profession. Thus in legal documents we often read, "John Jones, *Gentleman*," to distinguish him from a yeoman, or business, or professional man. But by comity and social progress the word is now commonly applied in this country, and largely in England, to people who are thought to deserve the title without regard to family descent, or business, or occupation. In this sense *Socialism* dreams that all people may be leveled up to this name, which like *Esquire*, *Mrs.*, *etc.*, are the legacy of the noble distinctions of the Feudal System, now common to all who deserve them.

T. B. W.

to the general and higher interests of social and public life. He felt, therefore, that he was to be as far as possible the independent, just, and fearless advocate and promoter of those views which those not enjoying his freedom could champion only at a fearful sacrifice.

Happy the Republic, could it boast of not a few such independent, cultured, fearless, devoted men! To them only seems to have fallen the final beatitude of the social prophet Fourier: "Blessed are those to whom Destinies equal Attractions."

Such men should be, and let us hope largely are, the higher jury of the Republic before whom its higher interests are tried under the higher laws of evolution and progress by which the stability of the achieved is made the firm base of nobler achievement. Wendell Phillips, a gentleman and a prominent member of this higher jury, has spoken much and well of the "Scholar in a Republic"—of his duties, and his responsibilities. It was given to the Founder of this Club, by word and influence and practical illustration, to reveal, as seldom, if ever has been done, the high calling of a *Gentleman in a Republic*. How courageously, faithfully, usefully, grandly our friend sustained, under the circumstances of uncertain health and social obstruction, the duties of a liberal American gentleman, all classes of our community have gladly borne witness. His noble devotion and disinterestedness disarmed all envy. Those upon whom fortune has smiled less favorably rejoiced that for once her favor had fallen upon one whose chief desire was to extend her blessings to all. Singular was the voice of grief, love, and eulogy which rose from the press and from thousands of all classes at the announcement of his sudden decease. Singular to hear words, such as rarely if ever have been spoken over the form of death, from the greatest orator and Freethinker of our time, Colonel Ingersoll, and also from one of the most devoted and talented of the clergy of our city, Dr. R. Heber Newton. The general tribute to his character and career was that he had been one of the most sincere, honest, and devoted of men. As such he had admirably performed his part, under his circumstances, as a member of that high jury of American gentlemen.

But because he was independent, sincere, and honest, a *first hand* and not a *second hand* soul, he had been compelled to form his own verdict upon the highest



of issues—the Questions of Religion, which the very fact of existence propounds to every mortal man. The value of every human life depends fundamentally upon its answer to these questions.

Let no one for a moment believe that unless these great problems had been truly and nobly solved by our friend, the character and consequent career which has called forth general homage, which has brought us here, which has made this club a fact, would ever have been possible.

Our President has therefore assigned to me as to one our friend was wont to call his "co-laborer" the task, or privilege rather, of saying a few words upon our friend's religious convictions. The first reflection upon this subject then should be that these convictions were the foundation of this man,—for a man more deeply, sincerely, and honestly religious has rarely existed. And because of his independence in every sense of the word, and his exceptional means of information, his ability, honesty, courage, and sincerity, and also because of the general worth and beneficence of his life, the fundamental religious convictions to which he attained upon the evidence of his century are worthy of earnest and careful consideration, especially by those who cherish his memory. Let us then, as the first duty, brush away certain misapprehensions:

Firstly, our friend was not simply a Freethinker, or Infidel, in the ordinary use and acceptance of the term, *and no more*.

He was indeed an Iconoclast, and yet that chiefly because he was the devoted adherent and exponent of what to him was the higher, the Positive, the *Universal Faith*.

The negative side of our friend's convictions has had an undue public emphasis. The impression that he was properly described as an Agnostic and Freethinker only seems to have been widely extended by the newspapers at the time of his death. We were told as a wonder that a Freethinker, without belief in any church or religion, could die as calmly as if going to his rest after a day of toil. One city paper even went so far as to compare his tranquility to that of that glorious *pagan*, Socrates.

The trouble with all statements of this kind is that they are anachronisms and are wholly oblivious of the law of evolution in religion upon which our friend's convictions chiefly rested. They were at best half-truths, the negative half merely, with the affirmative complement suppressed or ignored.

It was true that our friend had ceased years ago to believe in, or to use the religious dogmas, creeds, forms, and symbols of his childhood. He regarded them as superstitions, venerable for their antiquity and their past and even present usefulness to those who may still need them. But in our day and gener-

ation, under the light of evolution, he regarded them as obstructions to all higher religions and general progress. He was not slow, therefore, in remanding them, *for himself*, to the realm of tradition and poesy called mythology.

In his last lecture, the "Mastership of Man," nothing can well exceed the energy with which he denounces the further teaching as truths or facts, of such doctrines as the Creation and Fall of man, Original Sin, the Torture of Hell, the Vicarious Atonement, and Eternal Perdition.

How, after all that evolution has done for us in science, history, and religion, any one who supposes himself to be a gentleman, and therefore a fair and honest man, could continue to shut down this old theologic environment of falsehood, and horror upon the human soul of the Nineteenth Century, entirely passed his comprehension.

Fortunately, unlike poor Robert Elsmere of the current fiction, he had given no pledges to fortune, and still more fortunately he was able to escape from this chamber of theological horrors into the clear daylight of the Universal Faith. He therefore keenly felt, with old Lucretius, that the emancipation of the soul of man from its superstitions was really the great triumph of science, far greater than its material benefits, immense as these have been and are.

He therefore gave to the Liberal Scientists and Freethinkers encouragement and aid, as to necessary co-workers in the cause of truth.

The terrible curse of the nineteenth century seemed to him to be the persistence with which these horrid dogmas of the fifteenth century were still accepted and urged by an immense church-machinery as the very substance of religion itself. The same evolution which to his mind had opened up the Universal Faith seemed to him an open road which should to-day be filled by the *élite* of all civilized peoples.

But though he had outgrown the older forms of Theology as the forms and language of Religion, that growth was itself the result of an evolution of the very substance and reality of religion which compelled for it a higher and a truer expression.

The conviction that the old Theology would not stand the tests of science, was not, therefore, to him in any sense a retrograde step in religious culture. It was in itself an advance, an instance of the great law of progress, which is, that an apparent disintegration or differentiation is, if we have eyes to see it, always the result of a higher integration dissolving the old union and ideas at the call of a higher unity. Thus growth always dissolves the old materials in forming a higher combination. Under this law our friend found the old religious ideas gradually but distinctly enlarging by inevitable steps upward, from the simple



imaginative ideas inherited from our primitive ancestors till they culminated in the one grand Universal Faith of the present age; a Faith which includes all of the stages of past religious history, as so many steps to its own final triumph.

In this way, for instance, he followed the growth of the conception of an Anthropomorphic God until it blossomed out into the modern scientific conception of *The Infinite World*, as the true god in fact,—infinite, eternal, and unchangeable in its laws, yet ever varying in its phenomena. How fondly have we together pondered over this problem of problems, how gladly did we find that Goethe, the wisest of men, had placed the same solution in his *Faust*, that modern Book of *Job*, in the great Bible of Humanity.

In *Faust's* musings on God as an ultimate thought, we find the opening words of the *Logos-gospel* carried to their evolutionary and scientific result.

Says Faust:

It stands written: "In the Beginning was the Word,"  
Here at once I balk, who can ever help me on?  
Impossible that I can rate a word so high;  
Quite otherwise must I translate,  
If by the thought I am moved aught.  
Now it stands written: "In the Beginning was the THOUGHT,"  
Bethink thee well over this first line,  
That thy pen pass not too hastily on!  
Is it *Thought* that works and forms the All?  
No, it should stand: "In the Beginning was the POWER."  
Yet even as this I am writing down,  
Something warns me that by it I can never stand.  
The Spirit aids me, all at once I see the truth.  
And confidently I write: "In the Beginning was the FACT."

Thus the poet gives the growth of the God-idea from the *Word* of Theologic Revelation to the *Thought* of Metaphysics, then to the *Force or Power* of Dynamic Scientists, then to the *actual Fact*, and the laws of facts and things which modern Positive Science recognizes as the world of law and order about us. The world as a fact is the true God; the not *I*, which ever stands opposite to the conscious *I*, and with that forms the equation of conscious existence. Says Goethe again, in substance: "He who rises not high enough to see *God* and *Nature* as ONE, knows neither, and thinks only to sink in a sea of contradictions."

In a similar way we saw the *Personal Historical Christ* enlarged to the *Ideal Christ* or Humanity, the *Synthesis* of the Human Race, the epitome of all human History.

*The Holy Spirit* became the *Altruism*, Love, Sympathy, Charity, which makes that human *Synthesis* possible.

*The Holy Mother* re-appears as womanhood.

*The Hebrew-Greek Bible* extended to include the good and useful of the books of the race.

The *Heaven* imagined above became the *Ideal Heaven* germinating in the heart of man and to be realized in the *beyond*—that is, of the human future on earth.

The *Hells* were seen as the shadows of the evils which obstruct the incoming of this Heaven.

The *Creeds* become the Laws and Truths of science, classified into a Positive Philosophy unfolding and explaining the world around us, and the nature and fortune of mankind on earth.

May these few touches suffice to indicate the study of years by which the childish and limited words of the old faith of tradition and authority gradually expanded into a universal faith resting upon verifiable knowledge,—a solid religion which based human life and endeavor upon what man does or can know, instead of that which man does not and cannot know.

However this change of view may seem to others, to our friend it was the realization of a new and enlarged existence, which made life a blessed fact. It seemed to him that mankind was now just beginning to emerge as once did our savage ancestors, the cave-dwellers or Troglodytes, from earth caves, so now we, from the ancient cave-environment which superstition had built over all mankind. Its roof was the old solid firmament above, its floor the solid earth beneath, and still below was the Hell Stream of fire, while above all reigned a despot God, also "a consuming fire."

A life of terror, cowardice, and prostration was all that was possible to men in that environment. In that terror, darkness and selfishness, human brothers, trampled, persecuted, and wronged each other into misery and suicide.

But science had by the telescopes of Galileo swept that old cave-firmament and its God into Infinity, and brought forth the children of men into "the sun and star-lit hall of earth." The old night-mare of the childhood of the race had vanished. The limited faiths had expanded into the Universal Faith, and truth had brought peace, confidence, and healthy effort as the victory of life.

The fruits of this Universal Faith, this Religion of Humanity, which was the inspiring achievement of our friend's life, naturally sent its beneficence as far as his power or influence could reach.

The blessed leisure of wealth was not to him the occasion of a *nothingarian* dilettantism, of idleness or selfish pursuits of vanity, pleasure, or ambition.

Among its good results was the recognition of the interdependence and relations of all of the faiths and modes of thought as parts of one mighty Humanity—one grand human, progressive whole.

Out of such a recognition, which is one of the tenets of the Universal Faith and of that *only*, he sought to bring into this club a higher spirit, not only of toleration but of appreciation, than had before been found practicable even among cultured people. The spirit in which that effort was made, if still allowed to pre-



side over this club, will ensure a lasting benefit not only to its members, and the society of our metropolis, but to the Republic and finally to the world. That spirit of the human good will give a relation, if not a unity, of sentiment, to the most divergent thoughts and creeds,—will give to them hospitality instead of enmity, will give the amenities of cultivated souls wishing well to each, instead of the old exclusive bitterness of bigotry, exclusion, and persecution.

And what may not the enlarging circle of such an influence and example do in the world?

If the heart is right all is right. That well-wishing heart was the secret of the power of our friend;—for us to continue that power is the surety of success.

He told me at one of our last interviews that he had found the flower of our human Faith in the words of the poet Lowell in memory of the great Naturalist, Agassiz. He wrote them down for me, and from his own hand I read now the best picture of himself: the best ideal for us if we extend it, as he wished and as he did, not only to individuals, but to their thoughts, feelings, creeds, and faiths:

"His magic was not far to seek,  
He was so human; whether strong or weak,  
Far from his kind he never sank or soared,  
But sat an equal guest at every board,  
No haggard ever felt him condescend,  
Nor Prince presume; himself he always bare  
At manhood's simple level, and where e'er  
He met a stranger, there he left a friend."

#### THE NINETEENTH CENTURY CLUB AND ITS FOUNDER.

BY MONCURE D. CONWAY.

A youth went forth in the morning twilight and sat on the summit of a hill, gazing on the slumbering villages below. While he sat there a procession of weird forms passed before him. Out of the realm of shadows they came, into the same they passed, from their vast circuit. Between dusk and dusk their tall, swarthy shapes were revealed by the flaming star which each bore with an uplifted hand. The other hand of each was bent with open palm earthward. Though some of the faces were stern, others were beautiful. Though the youth longed that their eyes should turn towards him, and some word fall from their lips, silently they passed on, each eye bent forward on vacancy. He spoke, but they heeded not; he shouted, but they answered not; at last he wept and implored, and stretched pleading hands, but they returned him no sign.

At length the sun rose: its splendors shot over the earth, and nothing could be seen on the horizon but columns of rose-tinged cloud. From these the youth turned and hastened homeward; but through the day he sat dreaming of his vision, and in the night he could not rest. Ere daybreak he sat again on the summit, and to his joy the genii again appeared. This time,

he thought, they will surely speak to me, perhaps alight on the earth, or at least give me some sign of the errand on which they are bound. But it was not so: still their feet touched not the earth, no star was lowered, nor eye bent downward; the plaintive cries of the youth gained no response, and the morning light again smote the wondrous forms into floating mist.

Day after day, as it was breaking, found the youth speeding from his feverish couch; as its bright hours passed they beheld him tranced in gloomy abstraction; and the night brought out its galaxies only to be eclipsed by the upheld flames of his phantoms. So glided the weeks into months, the months into years. The whole life and heart of the youth were gone out into pallor and pain, as he thought only of the incomprehensible forms. With them went out sweet hopes and joys of those around him. Parent and sister, brother and lover, waited for the return of his affection and interest in vain.

One day, when he had come from his watch, it was told him that one who had formerly shared his love, lay dying. A shudder passed through his frame, as a glimpse of his dead world parted the cloud which separated him from it, then he sank, and lay as if turned to stone. In his trance that loved one stood beside him, and said: "Since thou didst die to me in the land of the living, let me live to thee in the world of the dead. Thou wouldst know the meaning of the phantoms. Listen! Their names are Life, Pain, Thought, Love, Death. They bear stars; for, starlike, they follow their courses, unhalting, unceasing, unswerving. Their steadfast eyes bend not to thee, their ears are deaf to thy cries, because they exist only in their eternal purpose. One sign alone they had for thee—and that, alas, thou couldst not understand: the hand pressed earthward. That would have said, 'As we pass steadfastly on our orbits, bear each our appointed star, fulfilling our task, even so do thou on earth, though thy star be a brief love, thy task a child's happiness.' Whilst thou vainly pleadedst for the secret of Life, its reality was with the butterfly that alighted on thy shoulder, the flower opening at thy side, unheeded. Whilst thou wert pondering the mystery of Pain, thou hast not cared that it was piercing hearts around thee. Whilst dreaming of the source of thought, thoughtless thou hast been; speculating about Love, thou hast shut it out from its rest in thy heart; grasping after the meaning of Death, thou hast made it the fearful guest of thy home."

Then in the grey morning he awoke to dream no more of the phantoms. Beside that bed over which Death was hovering, he watched till he saw the tide of life return, and when health and joy glowed there again, lo! he beheld the face of his fairest phantom, as if turned from its star-track to befriend him. Now,



under white hairs, his youth was partly recovered; he made hearts forget their pain in his songs; his winged hand achieved works for men; for him past dawns lingered in tints of the petal and the shell; the unswerving stars answered him in eyes he had taught to smile. In happy dreams the genii kissed him who had risen to their path by travelling his own with a steadfastness equal to theirs.

\* \* \*

My little fable is that of the world, and of our race. Through dark ages, and ages of long twilight, mankind have devoted first fruits of their humanity—their genius, learning, wealth—to phantasms of the unknown powers; to them sacrificed the joys of earth, its beauty, its peace, even after the slaughter of human victims had ceased. There are human sacrifices where no blood is shed; and they have lasted into our time. Dr. O. W. Holmes recently remarked to me, "I have spent some of the best energies of my life in merely clearing away the bushes to get at real life, and the simple truth of things." That is the experience of one reared at the fountain-head of American culture.

But we witness a change. A generation has arrived which realizes that it does not exist in one world to attend to the affairs of another, and that it has enough to do in grappling with known forces without wasting strength on the unknowable. Emerson said in my hearing, "An actually existent fly is more important than a possibly existent angel." The latter-day pilgrim reverses the "progress" of Bunyan's Christian: he journeys from the life to come to that which is. To some this is a new religion. As the poet Arthur Clough,—whom some are identifying as Robert Elsmere,—wrote:

"It seems His newer will  
We should not think at all of Him, but turn,  
And of the world which He has given us make  
What best we may."

This has long been the consensus of a majority of liberal and instructed minds. But there may be a religion without a gospel. To be a gospel it must baptize its forerunners and messengers with fire; it must attain human incarnation. Some must sell all they have and follow it. It must be beloved as well as believed, and lived, and embodied.

The first autumnal assembly of the Nineteenth Century Club (November 21, 1888) met to commemorate its founder, the late Courtlandt Palmer. It is strange enough,—and this great money-making New York is not unnaturally impressed by the fact,—that one of its old gentry, a society man, a millionaire, should have become the apostle of the new humanitarian faith. The fires of cremation were never more symbolical than when they reduced to ashes so much of Courtlandt Palmer as had not been consumed by his enthusiasm of humanity. I recognized the sacred

fire on him when he laid before me, as a newly chosen officer of the club, his ideas and ideals concerning it. The old social order, he said, advances swiftly to ruin. It rested on beliefs fast failing like rotten beams. The débris is already visible in decay of old restraints and consequent tendencies to anarchy. There are increasing moral and social dangers which threaten all equally—whatever their creeds—and which can only be met by the harmonized activities of all the humane, the earnest, the competent workers in the community. They must be drawn from their sectarian isolation. They must keep their theories, their theologies, but must abandon their bigotries—whether fanatical or radical—and coöperate for human enlightenment and welfare. The Nineteenth Century Club is introducing them to each other. It is much to bring them within hand-shaking distance of each other. We do not ask them to suppress their doctrines, but to be prepared to discuss them, to explain them, and to listen respectfully to the doctrine of others. He expressed his belief that similar clubs would spring up in other communities (already there are one or two such) and that a large humanizing and liberalizing influence would spread from them through the nation. Nay, through the world. During his last visit to Europe Courtlandt Palmer made an effort to establish a similar club in London; he failed only because London is already a vast Nineteenth Century Club, distributing its work in many sections and sub-sections, all meeting in its grand magazines and reviews—such as "The Nineteenth Century."

Our Nineteenth Century Club, seen in its founder's large way, is the legitimate successor of the original clubs. In ancient times, men who consecrated themselves to the salvation of mankind could not earn much money; they could live only by clubbing their small means together in convent or college. The club was the economy of the other-worldly. Its original intent survives to some extent in the English club of to-day, where scholars who do not devote their lives to money, may yet enjoy luxuries at low price. The need of our time corresponding to that which made poor priests and students "mess" together, is the spiritual, the intellectual, and moral need we all have to bring our isolated ideas and energies together, and, by exchanges, participate, without encroachment on each other, in the great banquet of truth and knowledge in our time. And that not for mere luxury, not only for dilettantism (though something may be said for these also), but for a purpose of human salvation as urgent as that which brought the old Black Friars and Gray to their commune. It is a salvation from ignorance, narrowness, from that pious provincialism which is our modern paganism. It is a salvation from the spirit which "evermore denies," and sour discord be-



tween honest men who should be friends and fellow-workers.

The Nineteenth Century Club is not founded to assail anybody's belief, but to humanize all varieties of belief. It is steadily replacing controversies with explanations; the speakers refrain from caricaturing each others' beliefs or unbeliefs. This is not the revolutionary or the iconoclastic method; it may permit the phantoms to go on with their procession somewhat longer, and to maintain their social estates. But the phantoms will have to remain by their benedictions, not their cursings; by charity, and not sacrifice; there will be flowers on their altars, and not bleeding hearts; they will survive by uniting those whom they once parted, as sheep and goats; they will approve themselves not by miracles of blasted fig-trees, but by bearing fruit on every branch for the sustenance and happiness of mankind.

### THE WISH-RING.

AFTER THE GERMAN OF RICHARD LEANDER.

There was once upon a time a poor wood-cutter that had married a good and honest maiden. He was working in a great forest, a day's journey from his native village, and was busied with the felling of an old oak tree. As the noble tree crashed to the earth, there came limping out of a rotten hollow in the trunk an old grամam. She told him that she was a fairy, that a wicked magician had bewitched her, and that the wood-cutter had at last delivered her from her long imprisonment. She wished to prove her gratitude to him and make him a present. There was an eagle's nest in the top of the prostrate tree and in it lay a solitary egg. The fairy took the egg and broke it. A plain ring dropped from it,—a ring of brass: "Take this ring as thy reward," she said, "it looks common and worthless, but it is a wish-ring; wish whatsoever thy heart desires and thou shalt get it. But mark me well: there is but one wish in it!

The fairy gave the poor wood-cutter the ring and vanished.

Any other man would have left his work and made a good wish at once. But Peter—such was the woodman's name—did not do that. "There is no hurry," he said to himself, "and then I must go home first and talk with my wife about it." He faithfully completed his work, and then with a light and joyous heart, wended his way homeward.

On the way, he passed through a great city. It had meantime become evening, and as he walked with firm step through the lighted streets, he saw to the right and left the brilliant and dazzling windows of the shops. At other times he had asked himself, as he saw the wealth of articles on show: "Canst thou pur-

chase this or that?" But to-day he viewed them all with princely pride, as if to say: "I could have them all. I need but to wish it and they are mine. But no! I'll wish me something better."

While thus talking to himself, he paused before the show-window of a jeweler's shop. Ah! how many costly rings there were behind those great panes of glass! The goldsmith stood in the doorway near by, having just quit work. "Well stranger," he said, "wouldn't you like to buy something of me?" And therewith he secretly examined the wood-cutter, to see whether, perhaps, he was able to pay the price of a gold ring. "No, master goldsmith," Peter answered, and turned to him with sparkling eyes. "Look here, this plain little ring on my finger is worth more than all your rings so precious, all your pearls, all your jewels and trinkets!" "It is a wish-ring," he added in an undertone, and told how he had come by it.

In those days—at the time of our story—wish-rings were not uncommon. The goldsmith was a shrewd fellow, and, as he saw that honest Peter was incapable of a lie, he at once believed the story that was told him. But he was greedy and covetous. "I must have that ring," he said to himself, and he called out pleasantly to the woodsman: "Stranger, you are a favorite of fortune. A man like you brings good luck to every man's house. What a pleasure it would be to entertain you! Step in with me, be my guest, and a hearty welcome to you."

Peter suspected nothing wrong and allowed himself to be led into the house by the over-friendly goldsmith. The goldsmith had his maid get a good-supper ready, for the old niggard had neither wife nor child, and brought out his best and heaviest wines for his guest.

Peter was tired from his day's work and his long journey, and had grown hungry and thirsty. At the sight of the good wines that he had never yet tasted in his life he became talkative, and soon after he sank into a deep and heavy sleep. Then the goldsmith pulled the ring from the finger of his guest, and put a common brass one in its place. The next morning, at daybreak, he awoke his guest, got him his breakfast with his own hands, and wished him God speed. Before opening his shop, he went down into the fire-proof vault of his house, put the ring on his finger and said: "Let there rain hard Prussian dollars, ten times one hundred thousand of them." And lo! down from the roof they came, and fell like hail-stones, fast and furious, upon the floor beneath. But many of them fell upon the head of the goldsmith, and he plunged senseless to the ground; still more rained upon him, and he was crushed to death. Down they came still, until there really were ten times one hundred thousand of them. Not a single one was



missing. But the goldsmith lay dead beneath his treasure.

After a while, when the goldsmith did not appear about the house, his maid became frightened and ran for the constable. The constable came, knocked, shouted, and then broke open all the doors. They found the goldsmith at last, buried beneath his piles of great, hard dollars. His heirs came, gave him a grand funeral, and divided his money amongst them.

Now, poor Peter trudged along with his wrong ring, and came to his wife with glistening eyes to tell her of his adventure in the forest. "I tell you, Peter," she said, "we'll wish for those two acres of land we just rented." "Not yet, wife," said Peter; "I've already saved a part of the money to buy them; we'll keep our wish for something better than that." And Peter went to his work fearlessly and trustingly, as though nothing could fail him.

Scarcely was the year up and he stood as his own master on his own ground. "Now, wife," said he, "both the acres are ours, and we've got our wish yet." "Yes," she answered, "and now let's wish for a cow." "No," said Peter, "we can soon save the money for a cow, and I am not going to wish for a thing that I can get so easily myself. I am going to wait with my wish until something extraordinary comes along."

And so it went from year to year. A horse was got, and then another; they increased their stock of cattle and bought more new land. The old cot had become too small for the young folk that were growing up; it was torn down and in its stead arose a handsome farmhouse, for Peter had become the most respected man of his village. His children grew apace, and were all sturdy and true, as was he and his wife. Everything that he laid hold of was blessed; for he went at everything with care and with a will, as though failure were impossible to him. He would often twist the ring on his finger, and when his wife glanced at him with the unasked question upon her lips: "Shall we wish this or that?" a smile would pass across his quiet face and he would say: "It's time enough yet. The ring brings me luck, and the wish—I'll always have *that* left."

And so it went on. He and his wife lived to a great and hearty old age. His children's children were growing up. He had become old and feeble, and one day he fell into a soft and silent sleep from which he never woke again. The shock was great to his wife, so great that she too had to seek her couch, and on the day after, she followed her husband. The venerable old couple were buried together. It was a noble following that marched along behind those coffins, the sturdy, powerful sons and the slender grandchildren, all with their wives and relatives. "And there was that ring," said the eldest "Poor father always had his secret

about that; he must have thought a great deal of it: so we haven't taken it from him."

Thus was the wish-ring buried with its owner, and it was not the real one at that. It had brought a blessing upon him and his house; not because happiness lay in the ring itself, but because that blessing lived in the bosom of its possessor. This it was that brought him happiness. The real wish-ring had brought its unworthy holder the fulfillment of his wish and with it the ruin that his covetousness had invited.

It is a strange thing, this matter of the right and the wrong. A bad thing in good hands is ever so much more valuable than a good thing in bad hands.

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True happiness is a part of our own and innermost nature, and what we commonly call luck and ill-luck, is often but our own fancy deluded by outward show and vain splendor.

#### THE CONSERVATION OF ENERGY IN THE MORAL WORLD.

BY GEORG VON GIZYCKI.

Translated from the German by *μικκ*.

There is also a law of conservation of energy in the moral world. Every man can make those words of Faust his own:

The traces of my days on earth  
Cannot in ages perish!

What a powerful assurance does this thought lend our actions, what a serious and solemn significance does it impress upon life! How it exalts our consciousness of self, how it awakens in us the sense of creative responsibility! And how this thought with its promise of unselfish immortality, works in us as a conqueror of death!

Nothing is lost! The results of our works are imperishable! When once a deed is done, it no longer belongs to us,—it extends its influence, in ever and ever widening undulations, into all eternity, "Our deeds," says George Eliot, "are like children that are born to us; they live and act independently of our own will. No, children can be strangled, but deeds never: they have an indestructible life within, as well as without, our consciousness."

Our deeds have truly "an indestructible life within our consciousness." Our existence is not a succession of disconnected moments (as the doctrine of chance represents it), and we do not at every moment begin to live life over again; yesterday is not indifferent for to-day, nor to-day for yesterday; but our life has continuity and solidarity; every part of it rests beneath the influence of what has gone before and influences what is to come. Every past has sown, every future will reap, good or bad. "The least step towards the bad," says Shaftesbury, "changes the character



and worth of life"; and the same is true of the slightest good deed. Every good deed makes easier those to come, it clears the way for better ones, it gives us a joyous confidence in ourselves, and strengthens our moral power. A bad deed makes better conduct difficult; it shadows one like a destiny, forcing him to continue onward in the path of evil, for it seems that there is no longer a way of return. "Our actions determine us just as much as we determine our actions," says the great poetess whose words we once before quoted. "There is a fearful power in our actions, that can first make a hypocrite of an honest man, and then transform him into agreement with this change of character; for, given the first misstep, the second appears as the only possible retreat and for ever afterwards the best. . . . Europe, they say, adjusts itself to the *fait accompli*; and so it is with the individual man."

Not only our actions, but our feelings and thoughts have their imperishable effects within us. Thence the commandments: Thou shalt not covet what is unjust! and: Be watchful and true!

But there are no actions, no feelings and thoughts, that affect us *alone*: they all extend their influence to others. Whoever injures his own physical and mental health, will thereby injure that of his descendants. "The iniquity of the fathers is visited upon the children unto the third and fourth generation."\* But whoever physically, or mentally, or morally, perfects himself, that person gives happiness to child and children's children. Yet the influence of our conduct does not alone affect our family,—it is, in the strictest sense of the word, immeasurable: it extends far and near, throughout all time. How must this thought exalt and gladden him who strives for the just and good! Could any other thought so much enhance the sacredness of moral obligation?

Perhaps but one: the thought that we alone can work righteousness in the world. The cosmic powers without us do not realize our ideals. If we conscious beings do not help ourselves, then no one will help us. If we do not ourselves help our brethren, then no one will help them. Gods will not help them, nor "time." John Morley has well said: "Mankind does not move onward like the hand of a clock, driven by a mechanism of wheels. It cannot rest for a generation, in the comforting consciousness that it will arise again at the end of thirty years in a greatly advanced condition. The little that we see at all of progress, is effected rather solely by human effort and human work. . . . He who thinks that abuses, absurd customs, life-wasting institutions, will disappear of themselves from the

world, forgets the fact that in most cases the selfish interest of whole classes is closely united with every one of these evils." Generations of men not only grow and flourish, but they pass away. Nations not only move in the path of progress, they decline and fall as well. Each of us can work to that end, that our humanity may not perish. Each of us bears within us a share of the responsibility.

#### THE MEASURE OF TIME.

BY JAMES BUCKHAM.

Life is too serious, filled with crying needs,  
For men to count their lives alone by years.  
The world's great heroes rose through toils and tears;  
They wrote the mighty sum of life in deeds!

#### SONNET.

BY LOUIS BELROSE, JR.

Ere the first rose, which bloomed when first we met,  
Gave fruit of flowers to a warmer sun,  
Ere Time, that tends the work by Love begun,  
Rolled back the leaves wherein her soul was set,  
This lady, now my fond heart's floweret,  
Remained unknown to me. She seemed like one  
Unworthy love, but whom we gaze upon  
Delighted for an hour and then forget.  
Even so she seemed who now appears to me  
But with her soul, that draws my own above  
Remembrance of her beauty's mastery;  
Only her dear, sweet soul, the light whereof  
Was lighted that my guiding star might be  
None other than the purest flame of love.

### BOOK REVIEWS.

LES PRINCIPES DU DROIT. *Emile Beausiire*, Membre de l'Institut.  
Paris: 1883. Felix Alcan.

Both in philosophy and jurisprudence the distinction between law and ethics is of recent origin. The philosophers of Greece overlooked it, the jurists of ancient Rome blended the two ideas in their universal science—the cognizance of things human and divine,—while for scholasticism the principles of jurisprudence were a part of theology. Puffendorf limited the *jus naturale* to outward acts, cognizable before the courts of man and not before the tribunal of God. Leibnitz like the jurists of antiquity, conceived the existence of a universal jurisprudence, comprising the justice of God and man, and finding its culmination in a future life. But it was not until Kant that the distinction was clearly indicated. Having posited in the Critique of Practical Reason, the underlying principles common to both sciences, he proceeded in two separate works to develop the formal elements of each. The limitation of the domain of natural law to outward acts was made the basis of a careful philosophical analysis, and the starting-point of an ingenious and profound formulation of the principles determining the respective provinces of jural and moral science.

While the distinction is now generally emphasized, it has borne fruit more quickly in the province of ethics than in the domain of law. The practical conclusions of ethical science rarely meet with opposition. Few call that a vice which others denominate a virtue: while many advocate as a right what just as many others denounce as unfounded either in the philosophy of nature

\* Compare Th. Ribot, *L'hérédité psychologique*, II. Ed. Paris: 1882. Ier Partie, Chap. 5; *L'hérédité des sentiments et des passions*, IIIème Partie, Chap. 5. *Les conséquences morales de l'hérédité*.



or the common experience of mankind. Upon the question of rights philosophers and jurists are divided. Anarchy prevails in the world of opinion touching the rights of mankind—and not because fixed principles are not admitted as maxims of conduct, but because these principles are not recognized as universally necessary and permanently requisite to the regulation of human laws. To dispel the confusion that thus reigns in the metaphysics of jurisprudence, and to attempt a philosophical exposition of the formal principles of jural science, has been the object proposed by M. Beausserie in his work upon the "Principles of Law."

"A single concept suffices to constitute law—the concept of duty. The idea of duty is borrowed from ethics; but the law accepts that idea complete and does not seek its origin. Duty is to law what space is to geometry. The task of going beyond duty the law leaves to ethics as geometry leaves to metaphysics the task of going beyond space." In this principle M. Beausserie finds the basis of his science. The development proceeds from an introductory discussion of the "state of nature," the "social contract," and of like hypotheses that adhere to the body of philosophic jurisprudence, to the division and analysis of the various jural ideas controlling the legal systems of civilized society. The propositions advanced appertain to no one community; the analyses offered rest upon the principles of no one system of law; but a presentation—in so far as that is possible—of the formal principles, the metaphysics of law, founded upon the basic idea of duty, is attempted. The book thus forms a proper introduction into the study of jural principles, whether for the student of law or the student of philosophy. In the method of such works lies the true foundation of a balanced legal culture.

That method is strangely opposed to the one obtaining in our country. On the continent the study of law is preceded by a survey of the formal principles of jurisprudence, whether it be through the medium of a work like that of M. Beausserie, or through the study of the more universal and equitable polity of prætorian Rome. But the pride of our jurists glories in the independence and indigenous character of our system of jurisprudence,—and they can conceive of no other scheme of instruction than the media-voc-historical method. Yet the pretension to an autochthonous origin is in the main unfounded. The influence of civil doctrines upon the Chancery, Admiralty, and Ecclesiastical Jurisprudence of the Anglo-Saxon nations is undeniable; the infusion of civil principles into the body of our commercial law is extensive and controlling; legislation bearing upon the law of marriage and the relation of the family to society is being constantly made to harmonize with the equitable notions obtaining in the time of Justinian; and the constant tendency of juridical methods is towards a recognition of the more universal principles developed by the prætors and jurisconsults of Ancient Rome. The code of Louisiana, the customary law of Lower Canada, are derived from the civil law. It constitutes the basis of the unwritten law of Continental Europe. In the colonial settlements of Java and Japan, in Ceylon and in Trinidad, in the East and West Indies, in South America, in Mexico, the basis of the dominant systems of unwritten law rests on the theories of the Roman jurisconsults. In the words of D'Aguesseau "the grand destinies of Rome are not yet accomplished; she reigns throughout the world by her reason, after having ceased to reign by her authority." Yet in the face of this universal influence the study of Roman jurisprudence, with few exceptions, finds no place in the curriculum of the Anglo-Saxon legal education. The introduction into the great body of legal truths is made through the medium of a work, which, however grand in method and execution, rests upon the erroneous assumption of a theocratical ordination—a work whose only worth must now be found in its value as a source of historical inquiry and as a classic specimen of English prose and juridical rhetoric.

REALISTIC IDEALISM IN PHILOSOPHY ITSELF. *Nathaniel Holmes.*

Boston: 1888. Houghton, Mifflin & Co. 2 Vols.

"Realistic Idealism holds that the Real and the Ideal are not two distinct worlds, but only the two sides or aspects of one and the same whole. Actuality of real Essence and Power. The theory is founded, as the universe itself eternally is, upon absolute and relative necessities, movable and immovable grounds, essential and changeable relations, the logical categories of reason, of freedom and necessity, universal and necessary truths, and absolute Fact. Its method is both analytical and synthetical, is neither exclusively dialectical and deductive, nor wholly experimental and inductive, but is both at once: it is, in short, the universal method of the Metaphysical Logic which takes up all science into intelligible and clear solution. It begins with Psychology and ends only in Ontology, or the Science of all real Being. The analysis finds its completion and absolute synthesis in the identity of the Real and the Ideal. Its Logic is grounded on these eternal necessities, absolute truths, essential and necessary relations, universal categories of necessity and freedom, and the universal and necessary fact of eternal movement on the basis of the immovable or the unmoved, and the instrumental mediation and reflection therein necessarily involved; and that are, all together and in the complex unity of the synthetic and absolute Whole, necessarily constitutive of pure universal Reason or absolute Intelligence, and of all Reality. Its summary category is that of Universality, Speciality, Particularity, and Totality or One-Wholeness. Freedom is mere possibility, and as such is an absolute fact; a truth that is as eternal and necessary as any other necessity of Reason. Universal Movement is the same thing as Self-movement, and is an absolute fact and a necessary truth as such. The universal and essential Whole, as absolute Content and Form in eternal movement, is eternally and necessarily differentiated, distinguished, and distributed into parts, aspects, and special relations within the Whole; and the eternally active and absolute Causality therein involved is eternally and necessarily mediated through these special determinations of essence, form, and relation, as media, means, or instrumentalities, and further differentiated into other specialities of essence and form, and into the particular substances, shapes, qualities, and properties of things in Nature; returning again through them and out of them into its own ever-continuous identity, whereby they vanish as such in a perpetual round or cycle of creation of new in the destruction of old. Such movement in Freedom and under all the categories of Necessity and Reason is thereby necessarily a rational process of change in the movable on the ground of the immovable, and is, in short, an eternal process of absolute Knowing and Creating. Knowing, or Thinking, is nothing else but that. Consciousness is the simple fact of knowing, and is nothing else but that. Such knowing, conscious movement is Will, and Will is nothing else but that; and Will is only partially (not absolutely) free, and is only partially (not absolutely) necessary. Some limited degree and measure of purposive self-determination to a definite end and aim is both possible and actual therein. Fully defined and correctly conceived, the universal and absolute Intelligence is found to be identical with the absolute logical Notion, Concept, or Idea of all Reality and all Ideality. Nature is the external aspect and manifestation of the continuous evolution of the universal, eternal, absolute, and ever-identical Whole into special and particular parts, aspects, and things, which are as permanent as they are permanent, and as evanescent as they are evanescent, existing as real only in the ever-flowing Ideality of the eternal Reality. Finite souls, in whatever degree, from the lowest self-conscious animal up to the highest human intelligence, are such specialities of essence and form, of soul and body compounded, in the sphere of external Nature; the internal soul being so specially constituted within the external body as to be in itself a special whole by itself considered, and a *quasi* logical Notion (however incomplete), and, as such, a partial and



dependent (not an absolute) unity or syllogism of synthetic Apperception and Judgment in a finite personality, sharing as such in the universal reason and life by a certain limited participation therein, and so being itself a special knowing, thinking, and creating power, under a special consciousness of its own, endowed with a certain limited free agency as knowing will or conscience, and capable of imposing law, guidance, and control on its own action and conduct, and of a certain measure of moral responsibility."

Such, in the words of the author, is the philosophic theory of Realistic Idealism—not remarkable for its lucidity. We are struck, we must confess, by the opacity of purpose pervading the work, and we think the presentation would have been much more effective, had the author, as he confesses he has not done, "contented himself with a rigid and exact statement of his own conclusions in the briefest form possible." Philosophy, it is true, is a "criticism, an eclecticism." But it is the eclecticism of ideas and not an eclecticism of theories literally transcribed with a painful affectation of artificial terminologies. We feel that Realistic Idealism in Philosophy itself is encumbered by its method, and that, though interesting in parts from the standpoint of the history of philosophy and by reason of its copious citations from the literature of ages, it cannot be regarded as having greatly contributed to man's "aspiration after an intelligible theory of the universe and himself." *μικρο.*

In the January number of *The Atlantic Monthly* Mr. Thomas Bailey Aldrich has published a poem on the Gloucester fisher folk, "Alex Yeaton's Son." Mr. Aldrich will contribute to the January *Scribner's* some bright memories of Portsmouth, N. H.

The New York *Evening Post* calls attention to Mr. William George Spencer's little book "Inventive Geometry." The author (father of the distinguished philosopher) has carefully graded and arranged his problems so as to impart to the student an increasing interest. Classes formed for testing the value of the work, we are told, proved extraordinarily successful. The book is published by Messrs. D. Appleton & Co., New York.

We welcome *The New Ideal*,—the successor of *The Index*,—to the field of modern progressive thought. The constructive method it proposes will undoubtedly contribute to its success. The editor, Mr. West, is the author of "The Complete Life," "Uplifts of Heart and Will," "Voices of Youth,"—earnest and thoughtful productions. The contributors, including many of *THE OPEN COURT's*, are all well-known. Liberal journals which do not rest satisfied with the negative views of Agnosticism are wanted, not only one or two, but many, and a healthy competition among them should arise, to bring to their readers the best, the purest, the ripest thought of our age. The more competition we have of that kind, the more such journals will prosper. The field is large and the harvest is great—but alas, the workers are few. We hope, and do not doubt, that *The New Ideal* has come to stay for good and will answer the need of the time.

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XIX.—Continued.

The same week the Sovereign was taken by the Chamberlain into the museum, in order that Knips might fall under his notice. The Sovereign looked with curiosity upon the lowly bent man, who perspired with fright, and who now quite resembled a mouse which is prevented by a powerful fascination from disappearing into its hole. The Sovereign discovered immediately what he called a subaltern nature; and the pale flat face, retreating chin, and dolorous aspect,

appeared to amuse him. In passing, he remarked the rampart of books from which Knips had emerged.

"You have made yourself quickly at home; I hope that you will find all the books that are indispensable to your work."

"I have ventured," said Knips in a high and rasping voice, "to borrow from your Highness's library much that I needed. My wants are moderate, and what I lacked, I have managed, through the assistance of honored patrons, to obtain from the university library of my native city."

The Sovereign answered with a short nod, and proceeded. Magister Knips remained standing in an attitude of deferent respect till the Sovereign had left the room, when he returned to his chair, and, without turning to the right or left, resumed his writing. Whenever the Sovereign entered or left the room he started up and sank down again, as if turned into an automaton by his great respect.

"Are you satisfied with him?" asked the Sovereign, of the Professor.

"Beyond expectation," answered the latter.

The Chamberlain, pleased by his recommendation, reminded his master that Knips was also an excellent painter of coats of arms, and possessed remarkable knowledge of the customs and regulations of the old Court festivals.

When the Sovereign left the gallery he cast a dignified glance over the bent head of the little man; but Knips might well be pleased with the results of this presentation, for he was pronounced very respectful, and regarded useful for further projects.

He had soon an opportunity of showing his usefulness in an extraordinary case. The arrangements of the Court were in every respect exemplary, and not least when the Sovereign wished to show some mark of attention. A confidential councillor kept a list of the birthdays on which the Sovereign was bound to make a present, and also of the popular festivals where it was necessary for him to present a silver cup or some other testimony of his royal sympathy. On this list was noted down the fixed value of the present; and as the time approached the councillor sent the necessary information to the Chamberlain, whose business it was to choose a suitable present. On the birthday of any member of the princely family the Chamberlain only made suggestions; the Sovereign himself decided what was to be given.

Now the birthday of the Princess was approaching. The gentleman-in-waiting, therefore, made a visit to her lady-in-waiting, in order to discover secretly what the Princess would like. In this not uncommon way many things were proposed; the Chamberlain of his own idea added modern trifles, among them copies of colored initial letters, which just then were painted in

\* Translation copyrighted.



albums and letter-sheets, for he knew that the Princess had wished for things of the kind. The Sovereign glanced over the list, and at last stopped at the initial letters.

"These Parisian manufactures will hardly please the Princess. Could she not have painted letters copied from old parchments by a draughtsman? Did you not extol Magister Knips to me? He could prepare very pretty little designs."

The Chamberlain expressed deferent surprise at his Highness's idea, and sought the Magister. Knips promised to paint all the letters of the alphabet in the old characters, and the Chamberlain meanwhile looked after the cover. When the work of the Magister was laid before the Sovereign he was indeed surprised.

"These are like the beautiful old rubrics," he exclaimed; "how do they come here?"

Every letter was so painted on the old parchment that at cursory glance it could not be discovered whether the work was old or new.

"This shows wonderful talent; take care that the man is compensated according to the value of his service."

Knips lapsed into a state of respectful transport when the Chamberlain demonstrated to him the satisfaction of the Sovereign in shining coins. But it did not end there. For shortly afterwards the Sovereign visited the museum at the time when Knips was working. The Sovereign stopped again in front of the Magister, and said:

"I was delighted with your pictures. You possess a rare aptitude: both eyes and judgment might be deceived by the counterfeit of antiquity."

"Your most gracious Highness must pardon me if, on account of shortness of time, the imitation was imperfect," replied the bowing Knips.

"I am quite satisfied with it," rejoined the Sovereign, examining sharply the countenance and bearing of the little man. He began to vouchsafe a feeling of interest for the Magister. "You must have formerly had opportunities of exercising this art in a remunerative way."

"It has been reserved for your Highness to render my little dexterity valuable to me," replied Knips; "hitherto I have only practised such imitations for my own pleasure, or here and there to please others."

The Sovereign laughed, and went away with a gracious nod. Magister Knips was judged to be very useful.

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The Princess was sitting at her writing-table; the pen in her little hand flew over the paper; sometimes she looked into a book, which had a learned appearance, and copied passages which were designated by marks. Steps in the ante-room disturbed her work;

the Hereditary Prince entered, with an officer in foreign uniform.

"Sit down, children!" exclaimed the Princess. "Put aside your sabre, Victor, and come to me. You have become a handsome fellow: one can see that you have taken your place among strangers."

"I am breaking my way through," replied Victor, shrugging his shoulders, and laying his sabre cautiously near, that he might reach it with his hand.

"Be tranquil," said the Princess, consolingly; "we are now safe; he is busy."

"If he said so, we must not depend upon it," replied Victor. "You have become serious, Siddy. Even the room is changed—books, nothing but books." He opened one at the title-page. "'Archæology of Art.' Tell me, what are you doing with this trash?"

"I am breaking my way through," repeated Siddy, shrugging her shoulders.

"Siddy patronizes learning," explained the Hereditary Prince. "We now have literary tea-parties, she has pieces read and rôles assigned. Take care, you will have to join it."

"I only read villains' parts," replied Victor; "or, at the most valets' rôles."

"The inferior parts are always my share," said the Hereditary Prince. "The best that falls to my lot is a good-natured father, who ends by giving his blessing."

"He has talent for nothing but open-hearted goodness; he protests if he has more than four verses to recite, and even with that there are pauses during which he fidgets with his lorgnette."

"His proper vocation would be that of pastor," said Victor, mockingly. "He would favor his congregation with short sermons, and set them a virtuous example."

"If he were only better than you, there would be no merit in it, Victor. You have the reputation of playing such naughty tricks that we are not allowed even to know them?"

"All calumny!" cried Victor. "I am harshly judged in my regiment because of my strict principles."

"Then Heaven preserve us from an invasion of your comrades. I am glad that you mean to pass your leave of absence in our parts; but I am surprised at it. You are free: the whole world is open to you."

"Yes, free as a jackdaw that is thrown out of its nest," replied Victor; "but there are times when it occurs to one that a garrison has not all the charms of home."

"And that you seek with us?" asked the Princess. "Poor cousin! But meanwhile you have been campaigning. I congratulate you. We hear that you behaved gallantly."

"I had a good horse," said Victor, laughing.

"You have also visited all our relations?"



"I have penetrated the mysteries of three Courts," replied Victor. "First, at my cousin's, the innocent shepherd's Court,—a charming rural life! The Grand Marshal carries embroidery in his pocket, at which he works among the ladies. The lady-in-waiting comes with her spaniel to dinner, and has him fed in the kitchen. Twice every week people are invited from the city to tea and pastry. When the family are alone at their tea they play for hazel-nuts. I believe that they are gathered in the autumn by the whole Court. Then I went to the Court of my great-uncle, with the six-foot grenadiers. I was the smallest of the society. One day all were in the costume of generals, the day after all were Nimrods, in hunting-coats and gaiters. One day it was drilling, and the next hunting. Powder is the greatest article of consumption at Court there. Even the ballet-dancers, they say, wear uniforms under their gauze. Lastly, there was the great Court of Aunt Louisa. All with white heads and powder. Any one with the hair of youth endeavoured to rid of it as quickly as possible. In the evening virtuous family conversation, and if any talked scandal, they would on the following morning receive an order from the Princess to contribute to some benevolent institution. The Princess Minna asked me whether I attended church regularly, and when I told her that at all events I played regularly at whist with our chaplain, I was held in great contempt. She danced the first country dance with her brother and only the second with me. The evening society was accurately arranged according to the respective dignities of the guests. There was the hall of the Privy Councillors, of the Chamberlains, and of the small folk of the Court; and, besides that, a lower place for an unavoidable class of citizens, in which bankers and artists wait to be noticed by their Highnesses."

"These formalities make us ridiculous to the whole world," exclaimed the Hereditary Prince.

The Princess and Victor laughed at this sudden ebullition.

"Since when has Benno become a Red?" asked Victor.

"It is the first time I have heard him speak in this way," said the Princess.

"A prince should only invite gentlemen into his society; but whoever is there should be considered as the equal of the rest," continued the Hereditary Prince.

Again the others laughed.

"We thank you for the wise remark, Professor Bonbon," cried Siddy.

"It was in this room that we dressed you up as an owl, Bonbon; and you sat here groaning under Siddy's mantle when the Sovereign surprised us."

"And where you received punishment," replied

Benno, "because you had so disfigured a poor fellow like me."

"Fix him up again!" cried Siddy.

Victor took a colored silk handkerchief, formed two points by knots for ear-tufts, and covered the head of the Hereditary Prince, who quietly submitted. His serious face, with his dark eyebrows, looked strangely from under the covering.

"The feather-coat is wanting," exclaimed Siddy; "we must imagine it. I am the quail, and Victor the cock. I know the melody that we used to improvise as children."

She flew to the pianoforte and ran over the notes. The Hereditary Prince twisted the theatre-bill, which he pulled out of his pocket, into a cornet, and cried into it, "Tu-whit, tu-whoo, Mrs. quail, I eat you."

The quail sang: "Pik werwit old tu-wooh, that you will not do." And the cock crows, "Cock-a-doodle-doo, dearest quail, I love you."

"That has never been true, Victor," said the Princess, in the midst of the game.

"Who knows?" rejoined he; "cock-a-doodle-doo."

The concert was in full flow. Victor sprang about, clapped his hands and crowed; the Hereditary Prince on his chair screeched unweariedly like an owl; Siddy moved her head in time, sang her pik-wer-wit, calling out occasionally, "You are very funny little boys." A slight knocking was heard; they quickly left off their play; the sabre was restored to its belt; and the quail became in a moment the distinguished lady.

"His Grace your father begs to inform your Highness that he will wait upon you," announced the page.

"I knew that he would disturb us," cried Victor, in a rage.

"Away with you, children," cried Princess Sidonie. "I must repeat once more, cousin, that I rejoice to have you with us again. We three will hold together. Benno is brave, and my only comfort. Avoid conversing with me whenever the Sovereign is present. I will not take it amiss if you do not notice me at all. The spy who is placed about me is now my maid of honor, Lossau. Every word that you speak in her presence is reported; you know the gentlemen, they have not become more pleasant."

"There is Benno's Chamberlain," asked Victor; "the Sovereign was talking to him a long time to-day."

"He is good-humored, but weak," remarked the Hereditary Prince; "and devoted to his place. There is no dependence on him."

"Try to behave well, Victor," continued the Princess; "be a good Chinese, and wear your pigtail according to rule, and deport yourself exactly according to the privileges of the tuft that you wear on your cap. Now, away with you down the private staircase."

(To be continued.)



## NOTES.

It is a welcome sign of the times that liberal minds have ceased to be satisfied with mere negations. Mr. Courtlandt Palmer, we are told by his friend and co-believer, in the same manner as THE OPEN COURT, was not satisfied with agnosticism, but aspired and endeavored to formulate his religion as a positive and a universal faith. In thus doing, radical thinkers again draw near to the old conceptions of religion; they learn to understand and to appreciate them without falling back into their errors. The time is ripe. If our orthodox co-workers in the province of religious thought will but grasp the outstretched hand, we may come to a fair understanding. Mr. Palmer in his Nineteenth Century Club has set a fair model for the free exchange of ideas, without aspersion, reproach or obloquy. Let us follow his example and the seed that is thrown out in this way on both sides, will certainly bear much fruit.

We are in receipt of a manuscript by Mr. Gestefeld, who criticizes Mr. Hegeler's article, "Free Trade or Protection," on the ground that the American nation is in so far different from other nations as that here the people and the government are one, while in Europe they are not. The American people, he declares, is an organism, others must be compared to machines. Organisms and machines cannot harmoniously work together. The mechanism will crush the higher organic life that comes in contact with it. Therefore, Mr. Gestefeld concludes, in order to preserve the higher organic character of our people, we must build a wall of protection around us against the mere mechanical nations of Europe.

We have at hand a pamphlet entitled "The Formal Recognition of the Transfer of the Lick Observatory to the Board of Regents of the University of California": including a Letter from the President of the Lick Trustees, Captain Floyd; an Address in behalf of the Trust by E. B. Mastick, and a Responsive Address by Prof. Le Conte, in behalf of the Board of Regents. Pre-eminent among the sciences, as impressing the imagination and kindling the enthusiasm of man, Prof. Le Conte places Geology and Astronomy. This comparison forms the topic proper of the address—not unmarked by poetic beauty. The address by Prof. Le Conte is a masterly, though brief, review of the developmental history of scientific methods.

We have made arrangements whereby we will receive new subscriptions to the *Forum* with a subscription to THE OPEN COURT for \$5.00. The price of the *Forum* alone is \$5 a year. It is "the foremost American review" of living subjects, and among its contributors are 200 of the leading writers of the world. It gives authoritative discussions of each side alike of every leading question of the time. The *New York Herald* says of it. "It has done more to bring the thinking men of the country into connection with current literature than any other publication." This is an exceptional opportunity for every reader of THE OPEN COURT to secure the *Forum*.

An advanced copy of "The Nun of Kenmare," an Autobiography, by Mary Francis Clare Cusack, late Mother-General of the Order of the Sisters of Peace, published by Messrs. Ticknor & Co. of Boston, is in our hands. It is the complaint of a high-minded woman for having been prevented by prominent church authorities from carrying out her work of devotion and charity. Her faith in the Pope, as explained in a letter to him, seems unshaken. She believes that his Holiness has been misguided. This autobiography states the one side, and whether we shall ever hear the other side remains still an open question.

Rev. W. H. Thorne, of Philadelphia, the author of "Modern Idols," (formerly a minister of the Presbyterian Church), informs us that he has founded a congregation called Unity Church, in which he attempts to teach a Universal Religion.

Dr. W. T. Harris, Prof. Thomas Davidson, Prof. Calvin Thomas, Mrs. Caroline K. Sherman, and Mr. D. F. Snider completed their Symposium on Goethe on Monday, December 31st. It was a worthy celebration of the Christmas week, and the success of these lectures proves that the West is rapidly gaining in intellectual breadth.

Prof. Cope discusses in the latest number of *The American Naturalist* the "Artiodactyla," a class of which the best known species are the deer, the antelope, the giraffe, and the bovine genera with their kin. The illustrations of the hoofs, the teeth, and the skulls of these animals will greatly enhance the interest in Professor Cope's article.

Henry Dunning Macleod's essay on "The Modern Science of Economics," published by the Manchester Statistic Society, criticizes the definitions of wealth by I. B. Say, Adam Smith, Richardo, Karl Marx, and others; pointing out that the nature of wealth is exchangeability. His opinion of John Law is the more noteworthy because Lawism is practiced still.

The Editor of the *Magazine of American History* has published in the January number of that journal an interesting article on "Historic Homes and Landmarks." It is an account of the romantic scenes and stirring events which made the whole "West End" portion of the New York City historic ground.

The Holiday number of *Wide Awake* contains the following little rhyme by M. L. H.:

"If I were a bird," said a boy,  
And exceedingly wise looked he,  
"I'd always build my little nest  
In the top of a Christmas-tree."

"Imperial Germany," a Critical Study of Fact and Character, by Sidney Whitman, is announced by Messrs. Ticknor & Co., and promises to be a work of great interest.

The January number of *Lippincott's Magazine* contains a notable contribution entitled "The Capture and Execution of John Brown," by an eye-witness.

"Remember the Tale of the Pygmy Fleet," is the name of a sweet picture which serves as a frontispiece in the January of *St. Nicholas*.

Professor Davidson lectured last Sunday before the Society for Ethical Culture of Chicago on the "Present Status of Thought."

"Pagan Ireland" in the January number of *The Century* is the first article of a longer series of essays by Charles De Kay.

Mendelssohn's Letters have been published by Ticknor & Co.

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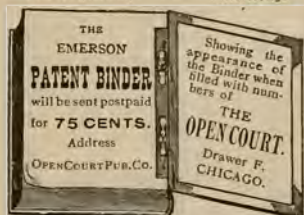
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PROF. E. D. COPE.

In Number 23 Professor E. D. Cope treats of "Evolution and Idealism," and finds in the evidence of evolution the refutation of the doctrine of idealism. He concedes that much of what we consider the objective world is unreal and has no existence, except, as we perceive it, like the snakes, for instance, to the victim of *delirium tremens*; and he agrees that "the properties of matter" owe much of their character, and even their existence, to our senses, which give matter all its qualities, or, at least, modify and change them according to the number of our senses and their ability to perceive. Yet, for all that, he says: "If a given supposed object be purely a mental state on the part of the subject, a rational cause for the production of that state is wanting."

With great self-confidence, Professor Cope says: "Evolution gives the *coup de grace* to idealism of the consistent type. In the gradual unfolding of organic life it sees the two universal facts, subject and object. It sees them interact and influence each other," and further on he says: "It is equally competent for the materialist to deny the existence of mind as for the idealist to deny the existence of matter. The materialist behold ing the imperfection of the senses may pronounce them to be, one by one, incompetent witnesses, and declare them to be illusions. But the fact is, both exist, object and subject, matter and mind."



# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 72. (Vol. II.—46.)

CHICAGO, JANUARY 10, 1889.

Two Dollars per Year.  
Single Copies, 10 cts.

## NATURE AND ETERNAL YOUTH.

BY PROF. GEORG VON GIZYCKI.

Death appears to us as a calamity; but greater would that calamity be, if there were no death: for death is the condition of the "eternal youth" of the human race. And so, in our innermost soul, we may make peace with death, and recognize that this arrangement of the order of the world which brings about a constant rejuvenation of life, is proper.

"Do not despise death," says the Stoic Emperor, "but be well content with it, since this too is one of those things which nature wills. For such as it is to be young and to grow old, and to increase and to reach maturity, and to have teeth and beard and gray hairs, and to beget, and to be pregnant and to bring forth, and all the other natural operations which the seasons of thy life bring, such also is dissolution. This, then, is consistent with the character of a reflecting man, to be neither careless nor impatient nor contemptuous with respect to death, but to wait for it as one of the operations of nature. \* \* \* Everything harmonizes with me, which is harmonious to thee, O Universe. Nothing for me is too early, nor too late, which is in due time for thee. Everything is fruit to me which thy seasons bring, O Nature: from thee are all things, to thee all things return."\*

We come in good company when we die. The place where all our loved departed lie and all the best men of times past rest—our mother earth—cannot be bad.

Let us merge ourselves in the unending being of the All, of which we are an actual part, in actual union with the farthest worlds. We are not strangers here, we rest in our home. Let us live here, therefore, with our whole souls; and let us be thankful and rejoice, that our native land, despite many a gloomy dale, is so beautiful. In us, nature exults in her own being; in us, nature blooms into consciousness; and the soil that, unceasing, produces new blossoms, remains preserved forever. Let us abandon our self-seeking, our arrogance and presumption, and disclaim the unreal absolute separation between us and the rest of nature. Let us plunge with our mind into the unceasingly rising and falling swell of physical and spiritual development, let us expand our Self until it encompass the

whole world, and we shall then experience its everlastingness.

Close thine acquaintance with Nature! And learn to revere her as mother.  
Then in the end thou wilt sink peacefully into the earth.

Do not fear death! thou wilt ever remain in the home that has born thee,  
Nor from the ground e'er depart, which in its love thee enfolded.

We are not spirits, but living bodies. Yet in so far as we are matter and energy, we are eternal. Schopenhauer well says: "Because the powerful arm that three thousand years ago bent the bow of Ulysses no longer exists, no thoughtful and logical person will think that the power is totally annihilated that once so potently animated the same, nor upon further reflection will he therefore assume that the power that bends the bow to-day, came first into being with that arm. Much nearer lies the thought, that the power that formerly animated a life now spent, is the same that works in the life now flourishing." (We now know that all energy is preserved.) "This will not, of course, satisfy the claims that people are accustomed to make upon proofs of a future existence after death, nor will it afford the consolation that people expect from such proofs. Nevertheless, it is something; and people who fear death as an absolute annihilation, need not condemn the perfect certainty that the innermost principle of life will remain untouched by it." Our substance too is eternal. "What! 'people will say, 'the life of mere dust, of crude matter, shall be regarded as the continuance of our being?' Ah! but do you know this dust? Do you know what it is, and what it can accomplish? Study it before you despise it. This matter that now lies before you as dust and ashes, will dart into crystals when dissolved in water; will shine as metal, will emit glittering electric sparks, will give rise to a force through its galvanic tension, that, decomposing the strongest combinations, can reduce earth to metals; yes, of its own self, it will rise in the form of plants and animals, and from its hidden bosom will unfold that life, the loss of which in your shortsightedness so deeply concerns you. To continue to exist as such a substance, is that so absolutely nothing?"

In so far as we are of the body, not an atom of us will be lost.

Yet—a fact more important for us still—in so far as we are of the spirit, we also have an existence hereafter. We are not "like grass," we flourish not "as

\* M. Aurel, IX. and IV. 23.



a flower of the field; for the wind passeth over it and it is gone, and the place thereof shall know it no more." Though we do die, yet the results of our life do not disappear. A noble deed, a good word are often the seed of thousandfold blessings. And though it be not apparent, yet the influence of a true and noble man, in whatever circle of life he live, is none the less real. And so, let us act immortally, let us so act, that the consequences of our actions are lasting life and not death. There is not a life that does not exercise upon others a beneficial or injurious influence; the good is the life-giving. We have a life before us that, if we so will, can become a model of excellence and righteousness. Is this prospect, then, worthless in our eyes, even if the individual life has in fact a limit? And when we stand at this confine and look back upon an upright and virtuous life, shall we then say it was worthless? "I do not repent of having lived," said Cato, "for I have so lived that I do not think to have been born in vain." The consciousness of duty performed makes death easy, and we can say with Paul: "Death is swallowed up in victory. O Death where is thy sting? O Grave where is thy victory?" And if we are good, we shall have left in the good men behind us a pleasant memory; the remembrance in the hearts of loved ones is a monument also. In this spirit Jeremias Gotthelf has the grandchild say, after the death of the revered grand-parent: "'Grandfather said'—'What would grandfather say'—'What would he think of it'—Such will be the best sayings in our house so long as we live."

Art thou afraid of death? thou wishest for being immortal!  
Live as a part of the whole, when thou art gone it remains.

As often as we love, so often do we live; we live the life of humanity, if we love humanity. Let us sow, that humanity may reap, let us strive after power, that humanity may grow better and happier, let us anticipate with hopeful spirit humanity's glorious future: and then we shall conquer death. The life of humanity is immeasurably long—for us, almost an actual eternity,—and the possibility, too, of the perfection of man and his conditions is immeasurably great. In the real earthly future of the human race our imagination finds a far more fruitful province than Heaven affords the fancy of the old-style believers. "When the conversation turned upon eternal life and its pleasures," said Dr. Martin,\* "I often ponder to myself, I cannot understand at all, what we are going to pass away the time with." And the thought, too, can console us, that our earth is not the only living world—life flourishes, here or on other planets, into all eternity.

Love of man dispels the fear of death. Even though we do grow older and the natural bound of life ever approaches nearer, yet that continues to live

which we love. Our interest in life, therefore, cannot diminish: the welfare of humanity has become our personal destiny. The answer to the question, "What shall I do to be saved?" ever remains the same: Love humanity better than thyself. There is no truer saying than that of the Song of Songs, "Love is strong as Death."

Our last hour is an act of life; we can transact it worthily or unworthily; our love or selfishness, our bravery or cowardice will show itself then for the last time. The hour of death makes an ineffaceable impression upon those that survive us; whosoever, then, while conscious, sees it approach, will regard it as a matter of duty to ennoble the last act of life. He will, if he be among beloved friends, once more afford them a proof of his love, and this of itself will yield him consolation. Duty and Love—they are the conquerors of death.

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M.D.

Part XLV.

#### HEALTH AND DISEASE. (Continued.)

The Chinese "*Book of Rewards*" tells a story of two lovers who became infatuated with the charms of the same maiden and who both were distracted by the death of their enchantress. But after her burial the elder of the rivals renounced the world forever and retired to a hermitage, while the younger continued his quest of happiness and finally won a fairer and better bride. The moral of the parable seems intended to inculcate the advantages of perseverance, but indirectly also illustrates the contrast of certain influences of health and disease. The victims of decrepitude endure the spite of fortune in stolid resignation, while conscious strength refuses to accept defeat and woos success by different methods, or in a new arena. Worn-out races seek refuge in resignation more easily than their healthier, though geographically perhaps less favored, neighbors; as emigrants, for instance, the effete natives of Portugal and southern France show less enterprise than the landlocked Hungarians and Swiss highlanders. The restless energy of our American competitors for the prizes of fortune has carried them further and further west, and the population of the Pacific slope thus represents the luckiest survivors of the moral marasmus that turned mediæval Europe into a lazaretto of madness and misery.

In many respects, therefore, that population should be distinguished by the moral characteristics of comparative health, and, indeed, exhibits many curious analogies to the moral types (if not the moral standards) of Pagan antiquity: The same boyish love of

\*Luther, Table-Talk.

\*Translation copyrighted.



mirth, the same frankness, the same hatred of despotism, of formalism and hypocrisy, the same generous impulsiveness, but also the same impatience of restraint, the same recklessness and fierceness of self-help. The virtues, as well as the vices of the typical Westerner, in fact, represent the extreme antithesis of the world-renouncing monastic type of early Christianity. The orthodox clergyman of a western mining-town still preaches the duty of passive submission to established authorities: his hearers defy those authorities at the slightest provocation. He repeats the commandment of meek non-resistance to evil: they pull their revolvers at a mere verbal discourtesy. He preaches the vanity of worldly wealth: they break their necks in a scramble for nuggets. He insists on the duty of humility: they prefer death to humiliation. He inculcates the efficiency of prayer: they woo the favor of heaven with crow-bars and blasting-powder. He describes the deadly snares of the arch-fiend and groans as he depicts the horrors of Gehenna: their comment, at the mere mention of that name, is expressed by a horse-laugh. He enlarges on the sinfulness of secular diversions: they would barter a stack of prayer-books for a fighting-cock and would shoot Sir Hudibras for interfering with a fandango. He assures them that weeping is better than laughter: they would dispense with sunshine as soon as with fun. He adjures them in the name of the moralist who commanded his disciples to abandon their families: they will travel a hundred miles afoot to rejoin their wives and youngsters. His gospel of other-worldliness has become a dead letter to men whose instincts rebel against the folly of sacrificing a safe present to an unknown future.

It is a significant sign of the times that in California, "the prototype of future America," sabbatarian despotism has never dared to rear its viper-head while the preponderance of secular over mythological influences is greater than in any other part of our national territory.

The "Land of the Setting Sun," like ancient Greece (blessed by an almost exactly similar combination of geographical and climatic advantages), is a land of realism and Nature-worship, and its prosperity offers an additional encouragement to the hope that on the whole the current of moral tendencies is rapidly returning from Ghostland to Earth. In the New World, at least, the doom of Anti-naturalism seems clearly sealed.

A less simple problem is involved in the question in how far such symptoms of returning health can be accepted as unpropitious to the prospects of *Spiritism*. Anti-naturalism is indisputably a symptom of disease, equally morbid in its cause and in its tendencies. The spiritualistic *diathesis*, as Carl Vogt expresses it, may,

however, imply an exceptional, rather than a morbid, or morbidic, state of physical concomitants. There are men who, in full possession of their usual health, have perfected their sense of touch to that degree of distinguishing objects which other persons can distinguish only by the tests of optical evidence, and even if that faculty should have been acquired at the expense of physical comfort (as by abrasions of the skin, in order to make the finger-tips, etc., more sensitive) that circumstance would not necessarily invalidate the competence of their conclusions. For similar reasons the phenomena of spiritualism can hardly be discredited by ascribing them to an *abnormally sensitive* condition of the psychic organism. In other words, the symptoms of special physical disorders may include the functions of a mental stimulant. The febrile effects of various stimulants are so well known to react on the brain, that habitual opium-eaters and dram-drinkers often come to consider a dose of their virulent drug an indispensable preliminary of mental efforts, and Lord Byron, as well as Carl Weber (the author of *Democritus*) record the fact that they used aperient medicines for a similar purpose. Laurence Sterne wrote the last chapters of his *Sentimental Journey* under the influence of an hectic fever. Memories of bygone events have often been almost miraculously revived by abnormal conditions of the body (insomnia, the fever of excessive fatigue, the incipient symptoms of strangulation, etc.), and the Yogis, or Brahminic enthusiasts, are said to induce visions of departed friends by starving themselves into fainting fits.

Psychology is too sadly far from having attained the standpoint of a positive science, to warrant the dogmatism of the materialists who absolutely deny the possibility of enlarging the scope of mental vision by physical artifices, and who think it inconceivable that bodily infirmities could intensify, or, indeed, fail to impair, the vigor of the mind.

We must beware, however, of falling into the mistake of confounding the effect with the cause of intellectual energy, in trying to explain the frequent concomitance of genius and disease.

"The fiery spirit, working out its way,"

may undermine the stamina even of vigorous constitutions, and Arthur Schopenhauer goes so far as to consider certain mental gifts absolutely antagonistic to the physical interests of their possessor. "The human brain," he says, "is a parasite which attains an abnormal development only at the expense of other vital organs, and transcendent genius generally precludes the hope of long life, or else avenges its prerogatives in the abasement of the next generation. Nay, even the *lex parsimoniae*, Nature's thrifty habits, preclude the hope of a simultaneous excessive development of mental and physical vigor. Young apes, in



their years of immaturity and helplessness, often amaze the observer by their almost human intelligence and docility; in after years that disposition gives way to stupid truculence, as if Nature had deemed it superfluous to lavish intellectual faculties on a creature abundantly able to make its way through life by dint of physical strength."

Perfect mental and perfect physical health are perhaps necessary concomitants; but the evidence of biographical records leave no doubt that abnormal (and especially one-sided) mental pre-eminence, is compatible with all sorts of physical infirmities—occasionally even with cerebral disorders. Cromwell and Dr. Johnson often passed weeks in a state of mental despondency bordering on despair. In the case of Swift, Tasso, and Cowper, that disposition became chronic. Rousseau's eccentricities justified the suspicion of madness. Lord Byron's best friends pronounced him unfit for the duties of domestic life. Saint Simon was subject to fits of hypochondria, which at last drove him to suicide. Fourier, Swedenborg, Luther, and Dr. Zimmerman were troubled with bewildering visions. Julius Cæsar was subject to epileptic fits. Newton, Pascal, Auguste Comte, Albertus Magnus, and Cardan had periods of mental aberration that terrified their friends with doubts of their mental sanity. Richelieu suffered from hallucinations as strange as that of Nebuchadnezzar; "he would fancy himself a horse and prance round the billiard-table neighing, kicking out at his servants, and making a great noise, until, exhausted by fatigue, he suffered himself to be put to bed and well covered up. On awakening, he remembered nothing that had passed." Peter the Great was eccentric to a degree that would have doomed any other man to the insane asylum. Charles XII, of Sweden, Felix Sylla, Mohammed the Second, Haroun Al Raschid, Alexander the Great, and Sultan Bajazet were subject to fits of uncontrollable rage. So were Dr. Francia and the poet Landor. Mozart died of water on the brain; Beethoven was morbidly sensitive and eccentric; Molière was liable to cataleptic fits; Chateaubriand to attacks of the darkest melancholy; George Sand to suicidal temptations. Chatterton, Gilbert, and probably Rousseau yielded to that temptation. Alfred de Musset and Poe died a drunkard's death, and Donizetti ended his days in a mad-house.

Yet all those examples seemed to confirm Schopenhauer's theory rather than the hypothesis of Dr. Moreau, who held that genius is merely an incidental symptom of nervous disorders—"a mere allotropic form of that abnormal condition of the nervous centres which elsewhere manifests itself as epilepsy, monomania, or idiocy—the physiological history of idiots being, in a multitude of particulars, the same as that

the majority of men of genius, and *vice versa*." That strange assertion would be sufficiently refuted by the frequent concomitants of nervous disorders and the most commonplace intellectual mediocrity, but also by the still more frequent contrast in the hereditary antecedents of idiocy and genius. Imbecility can nearly always be traced to an ancestral taint of mental unsoundness or vice, while genius springs as often from a lineage of health and physical vigor. Queen Christina's and Marshal Saxe's fathers were stalwart kings. Goethe's and Schiller's, robust burghers of conservative habits. So were Napoleon's, Mozart's, Heine's, Schopenhauer's, Franklin's, Galileo's, Haller's, Herschel's, Newton's, James Watt's, Milton's, Beranger's, Beethoven's; and Vandyck's, Bunsen's, Burns's and Carlyle's parents were honest peasants. Lessing's and Addison's were simple country parsons. Schopenhauer's view is still further supported by the genealogical infecundity of genius. Not one of a hundred great statesmen, poets, or philosophers, has transmitted his talents to his offspring.

As a rule, then, we may assume that disease is *far oftener the effect than the cause* of abnormal physical vigor, so much so, indeed, that under ordinary circumstances it tends to impair, rather than to promote, the development of inherited talents.

Nor can there be any doubt of the anti-moral tendency of many physical disorders. Principles of honor, of veracity, benevolence, justice, chastity, may all yield to the influence of lingering disease. Certain nervous disorders beget an almost uncontrollable desire for the perpetration of mischief. Only a few months ago a young girl made three different attempts to burn the buildings of a New York charity hospital, where, on account of her youth (less than twelve years) and her bodily infirmities, she had been treated with invariable kindness. On being confronted with the undeniable proofs of her crime, she burst into tears, and, with passionate emphasis, reiterated the plea that she "could not help it, though she had almost gone crazy in trying to fight it down," and added, that she had more than once been on the point of asking the superintendent to send her away, and that she would have run away if she had not felt sure that her evil penchant would ripen into action somewhere or other.

Dr. W. B. Carpenter mentions the case of a young lady who had enjoyed all the advantages of a liberal education, and who, as a consequence of a nervous disorder, was seized with an irresistible desire to practice all sorts of deceptions upon her unsuspecting attendants, and at last tried to mystify her physician by sticking a handful of pins into different parts of her body and pretending that they had been swallowed in a fit of mental aberration and worked their way out,



after causing her untold agonies of internal pain. The circumstance that the migratory implements of torture had all come out head-foremost, at once suggested the real mode of their introduction, but nothing short of an hypothesis of moral insanity could explain the motive of the fair prevaricator, who could not possibly have been actuated by the desire of simulating disease for the reasons which occasionally induce soldiers and prisoners to enjoy a few weeks of rest in the hospital.

Mohammed the Second, the most accomplished monarch of his age, was subject to periods of chronic indigestion, attended by moral symptoms which often endangered the lives of his best friends. In one of those paroxysms he made a savage attack on a messenger who happened to approach him without the formality of a special permission, and once actually butchered his favorite page, Constantin Chranza, whom he had carefully educated for the special purpose of conciliating the good-will of his Byzantine subjects. A perhaps still stranger case is that of the young Scotch pedagogue, Thomas Hunter, who was hanged at Edinburgh, August 22, 1700, after having his right hand struck off at the foot of the gibbet. Hunter had been engaged as a tutor to the sons of Col. Gordon, the chief bailie of Edinburgh, and a year after (having been guilty of some indiscretion which his pupils reported to their father) was kept awake several nights by the fear of losing his position. That fear proved to have been unfounded, and Hunter continued to enjoy the confidence of his patron, but a week of insomnia had unsettled his mind, and the first time he got a chance to accompany his pupils on a butterfly-hunt, he lured them into a thicket and after savagely upbraiding them for their indiscreet gossip he assailed the eldest with a knife, cut his throat from ear to ear, and then overtook the murdered boy's brother and succeeded in taking his life just before his shrieks attracted the attention of a party of gentlemen who at the time were taking a walk in the fields.

The absence of anything like an adequate provocation was equally remarkable in the more recent case of Prof. Fütterer, a teacher at the Gymnasium, or classic high-school, of Heiligenstadt, Prussia. His versatile accomplishments made him a favorite both with his colleagues and pupils, till in the summer of 1859, he became subject to chronic headaches and fits of ferocity, which on more than one occasion justified the suspicion that he had actually attempted the murder of scholars who had provoked him by nothing worse than a chronological error or the mis-conjugation of some irregular Greek verb. The passionate contrition of the eccentric teacher complicated the mystery of the moral phenomenon, and after a protracted investigation he had just been re-instated,

when he proved the sincerity of his regret, or his determination to avoid a relapse, by committing suicide.

(To be continued.)

## FACTS AND PROBLEMS OF SCIENCE.\*

### THE CONDITIONS OF LIFE.

BY W. PREYER.

PART IV.

(Concluded.)

The fact that by the removal of all the external conditions of existence animal and plant life may wholly cease and, after the restoration of those conditions, may begin anew, must be regarded as fully established. For, in the examples given in the last chapter, as also in numerous other cases, every possibility of dormant life or of a *vita minima*, was excluded. Whatever may be said of dried infusoria, which have been kept in a vacuum and exposed without detriment to water at boiling heat—organisms which, it may be shown, hold undigested food in their transparent stomachs—no intelligent person will affirm that a transfer of material takes place in frogs and fishes that are frozen through and through.

It is a striking proof of how very difficult it is for the human mind to accept such truths as destroy opinions and articles of faith early rooted in the affections, that even prominent scientists like Alexander von Humboldt, Ehrenberg, and others have held fast to the "*Eternal Whirl*" of matter in living beings. And even to-day very many would explain all the observations and experiments which I have adduced, as mere illusions. But since the same sort of experiments may be easily instituted, doubts will vanish by and by and the old views respecting life will be abandoned forever.

According to these views there belong to the fundamental conditions of life a *life-substance* and a *life-force*.

To assume, in addition to the known elements, a simple substance which by its presence in all living organisms alone conditions their vital phenomena, is inadmissible for the simple reason that the chemical elements constituting these organisms (the elements were given in Part II of this essay) are such indecomposable substances as of themselves exhibit phenomena of life when united together in certain unions and arrangements under known conditions. Thus, the former hypothetical element or fundamental substance of life would not be distinguishable from these latter elements, each one of which conditions the phenomena of life; for, if it existed, it would after all be effective only under the same conditions, and not during the completely parched or frozen state.

The times have happily gone by, when prizes were

\* Parts I, II, and III of the above article appeared in Nos. 34, 35, and 36.



offered for the solution of the question as to whether plants produce an element, like nitrogen for instance.

Still even now, though in a somewhat different sense, it is an open question with some whether one of the organic elements may not be produced from the others. Here carbon would come into consideration. In all its different elementary forms telluric carbon either bears in itself the unmistakable stamp of organic structure or it may be traced back with certainty or probability to extinct organisms. And this is the case with no one of the other elements. Even graphite, in which the characteristic stamp is almost obliterated, is probably a changed form of plant carbon. We can produce it from coal and diamonds which in their turn are of vegetable origin. If, therefore, there is now no inorganic carbon, and carbon is an element, compounds of carbon must have been formed before the origin of plants on the earth; and in the structure of these compounds carbon must have existed in a form in which it now no longer appears. The carbon of carbonic acid gas is cited in claim of this. The carbonic acid gas which volcanoes send forth may arise, however, from the decomposition of carbonic acid salts of organic origin, or possibly from combustion of plant carbon; and if there are some carbonic acid salts which cannot be traced to animals and plants—there is even fluid carbonic acid gas in quartz in microscopical pores—it is still a badly founded hypothesis to assume that there were formerly enormous amounts of carbonic acid gas by means of which the first organisms were formed. This assumption is commonly made in order to explain the first origin of life; and there seems to have been no fear on the part of scientists of a false conclusion. Even to this day there has been discovered no sufficient source of carbon before the appearance of plants upon the earth. Only the small amounts of cosmic carbon from meteorites can be adduced beyond question. And even in respect to these it is not easy to prove that they did not spring from living bodies of other worlds.

Accordingly, if carbon, which exists in abundance in all living things, is in the chemical sense an element, incapable of analysis and unchangeable, and therefore not derived, nor transitory, then if it is not exclusively of organic origin, it is incomprehensible how it could have passed through organisms almost without the loss of so much as a remnant. I merely intend to call attention here to a difficulty which is greater than has hitherto been supposed and which strongly impels us to doubt the elementary nature of carbon. So long as this question is not settled little can be said of the "how" of the first appearance of vegetable and animal life on the earth.

Not less precise than its position as to the life-substance is the ground which the present investiga-

tion of life takes against the former assumption of a special life-force. The latter theory which holds that the supposed "whirl of matter" must take place as long as the life of a body lasts, has been set aside forever by the re-animation of animals, plants, eggs and seeds of the most different sorts or classes after they have been dried up, frozen and kept without air and food. If it is possible, though only in a single case, utterly to destroy life merely by the withdrawal of water or heat, and to restore it again after any length of time by the restoration of water or heat, there is no longer a corner into which the theory of a special life-force can seek shelter. Just as if somebody by drying up a cistern should wholly destroy a spring, and by restoring the water set it running again, and then gravely assume a special spring-force. Or, just as if somebody by cooling off a piece of glowing iron so that it no longer glowed, and by re-heating it should set it glowing again, and then assume a special glowing-force!

From the fact that the life-process may be interrupted at pleasure and restored again to normal action, like the spouting of fountain or the white heat of metal, a very important result is attained which heretofore has not been brought forward. I mean the necessity of sharply distinguishing between the two opposites of *living*—the contradictory (the *logice oppositum*) *not living or lifeless*, and the contrary (the *realiter oppositum*) *dead*.

All organisms are either living or lifeless. Those not living, hence inanimate or lifeless, are, however, in no wise always dead. Rather, they are either *lifeless*, but *capable of life*—*anabiotic*, i. e., capable of reanimation, apparently dead in a narrow sense—or they are *lifeless and incapable of life*, for which state the term *dead* is used. At the present time, however, the distinction between the two last named conditions can not be definitely given. It is only to be regarded as very probable that death consists in an important, irreparable change in the structure of the tissues. But since such a change has not been proved in all cases of death and perhaps never can be proved in all, and since in every unsuccessful attempt at reanimation where such structural changes are not demonstrable the absence of vital activity may be traced as well to the shortcomings of the experiment as to the lack of vitality, the question as to the distinction between *capable of life* and *incapable of life* will always remain of a transcendental character.

Or we may go still further. It may be highly probable that by careful observation we could distinguish with certainty in each individual case the living from the lifeless; but still it would be difficult to affirm with assurance in each individual instance whether a lifeless organism is capable of life or not, whether



it is anabiotic or dead; since only one experiment with re-animation can decide the matter, and since the absence of vitality does not necessarily follow from the *failure* of this one experiment in the same manner that the presence of vitality would be inferable from its *success*.

Effective as is the comparison of an organism with a machine, it is here inapplicable. We can indeed compare an engine which moves and works when it is carefully supplied with air, water and food (i. e., coal and oil) and is heated, to an active organism which is likewise carefully supplied with air, water and food and heated, in so far as both cease to operate without becoming incapable of work if these four conditions are wanting. Further, a motionless, heated machine may be compared without violence to a living organism at rest or asleep, and a broken machine, incapable of work, to a dead organism, incapable of life. For a machine cannot work uninterruptedly any more than an organism can; it too requires the alternation of rest and activity if it is not speedily to suffer injury from overheating and disuse, and to become ill, so to speak. But in a machine it is not difficult to find whereby it is incapable of work, be it rust, be it lack of proper adjustment, or be it worn out in its parts; while in the organism it is often impossible to find the cause of death, and even when it is found no one is able to remedy the evil as in the case of the machine.

This great distinction, however, is not a difference of the mechanical principle involved; it is to be attributed solely to the incomplete means of investigation and the defective therapeutics at our command, the former of which can never with certainty perceive the defects in the body, and the latter can never remove insufficient heart-beats and weak lungs and supplace them with sound organs.

There are other phenomena of life besides death, the last of all, which fail to support the comparison of organisms with machines. Right where the mystery of life is the darkest, the torch of the mechanical attempts at an explanation goes out. *Growth* and *generation*—the latter a special sort of growth, extending beyond the individual person—may perhaps be explained in the future, just like digestion and respiration, as machine-work; but perceiving, willing, and imagining cannot be comprehended as mechanical processes. For this class of phenomena from the founding of mechanics to the present day, no sufficient explanation has been offered. In both fields of inquiry the methods are still lacking for the investigation of the unascertained data. And the mass of wholly certain facts is in no wise so great that the hypotheses based upon these facts must be confirmed by them. The organic conditions are still too little known. An experimental doctrine of evolution, an experimental comparative

physiology are only young sciences. An experimental psychology has been founded only in the most recent time. A comparative psychology scarcely exists as yet. These studies, however, must be thoroughly established before we can attempt an explanation of vital phenomena. Respect for facts is the corner-stone of every good theory.

But though so many facts from the fields of psychical phenomena have been determined with certainty, they are so little receptive of a mechanical explanation—judging at least by those already known—that it might very well be questioned whether those processes can be investigated with the means hitherto employed.

Undeniable as is the title and worth of the present mechanical explanation of life, strong as is the support which it receives from the artificial removal and the life-giving restoration of the conditions of life, still it affords no prospect of explaining by mechanics alone the complicated spiritual manifestations of life, even though it may know ever so accurately the conditions of physical life. Only he who is inseparably chained to the principles of modern mechanics and is carried away with its unrivalled successes, can deny that by itself alone it is incapable of explaining satisfactorily the will or the perceptive faculties; only such a one can submit to those incomprehensibilities, "force and matter," or on the other hand assert, because mechanics cannot explain spirit, that it is unexplainable. It is indeed much easier and much more convenient to explain as many things as possible mechanically than to discover laws which will be effective, independent of all mechanics.

Modern mechanical science proclaims as dogma altogether too much of that which is not yet understood. And if it does appease or satisfy curiosity better than all other methods, it is still to be questioned whether with its present current principles it will be effective in the future, since the satisfaction it affords is one-sided. It fails to explain too many objections to deserve the measureless deification it now enjoys. It is warranted, it is necessary, but it is overestimated. At all events it is to be hoped that in the construction of a science of mechanical physiology the light of philosophy may not be shut out.

Just at the present time the advocates of this victorious view should be careful to keep within bounds. But after natural science has acquired its sovereign independence it has still a double duty—firstly, not to erect purely one-sided limits and, secondly, not to combat dogmatism dogmatically, but to give instructions in which on the contrary tolerance and reserve are characteristic features. Other coins have value besides those which science stamps; and other things have weight besides those which science weighs.



So long as we regard this matter in a different light, so long as we do not recognize in philosophy a science of principles like mathematics, progress though it may be rapid, will not be sure enough. We must know whether the basis on which we operate is weak or strong as we draw near the goal.

This end which the empirical investigation of life hopes to attain is the determination of all the conditions of life. Not the final cause, not the necessity, not the purpose of life, is its end and aim.

And if at times the translucent crystals of true discovery shoot in amid the turbid mass of errors, if a scientist deciphers correctly a passage of the book of truth—that book so infinitely difficult to read—even then he has not made the costly treasure though he may have spent both toil and pains in bringing it to light; he but speaks with stammering tongue what gracious nature in a happy hour has granted to him.

#### A GENERATION WITHOUT PROSPECTS.

BY MORRISON I. SWIFT.

The question what shall be done with boys to give them a fair start in life is obtaining a new significance now that so many of the old avenues of activity are being closed\* and when the temptation is strong to spend boyhood years in occupations that bring an immediate income but which train for nothing and lead no higher. While the problem is grave enough for the youths themselves and for those whom they try to help with their earnings, it is a still more serious affair for the general community. When the time of life at which any income seems acceptable and large is past, there comes discontent if other natural wants cannot be satisfied. The proper time for marriage arrives and as yet these young men are not well qualified to even to support themselves. They refrain from marriage and follow vice, or they hopefully leap into the gloom and surround themselves with a family whose sustenance is precarious, whose education is impossible, whose health—such as was ever possessed under these conditions—is undermined, and whose next descendants will recruit the prostitutes, criminals, and insane, or be youthful victims of death if fortune is moderately generous to them.

For this neglect of its youth the whole community pays a heavy penalty. An epidemic infects the social atmosphere causing immeasurable pain and observing no limits as to whom it afflicts. Nevertheless, the forefathers of this physical degeneration and moral depravity were industrious and faithful boys, taking up the cares and burdens of life too soon, but with a manly purpose. They were of stuff from which vigorous and useful progeny should have sprung.

But they were neglected, and an idea is prevalent

\* See article by Noah Brooks in the *Epoch*.

in our fresh new country that is responsible for much of this neglect. Our successful men of trade and industry began poor and subdued fortune, and this to them is forevermore the law of human success. In their eyes the world stands still and the conditions of victory in trade are invariable and eternal. In their youth no barriers were insurmountable and in their firm opinion no barriers are insurmountable still. Nor do they imagine that men differ in capacity, but, because they conquered, all men should conquer and those who do not, stand condemned. And now, as if Providence had set his face against us and determined upon our destruction, it happens that these men hold great influence and their opinions are much deferred to. 'Tis still the fancy of innumerable parents who might order it otherwise, that their children should be thrown upon the world without much training at an early age, to shift and learn for themselves. We cannot wonder, then, that those who must early struggle for daily bread are not much helped or trained out of the general purse. Our over-ripe watchword still is: "Let the boys alone; it will bring out their best qualities to bear hardships. We had them, and do but observe the results."

In all sincerity and good intention this is being continually said, and the boys of our altered generation are left to their unequal contest. It is humiliating to be compelled to repeat, in this day of obvious revolution, that times have changed. But times have changed, and it is no longer wise or safe to toss boys at random into the crammed and merciless business world, and tell them to go to work and succeed. It requires no little bravery to say what must be said as commentary upon this heroic process, but truth must out, and it is certain that an amazing number of the men who now own the world, could not to-day start penniless boys, as they once did, and achieve such mighty distinction. Instead of the golden glory that surrounds them, in place of being taken for superior men by all whom they meet, they would end as clerks or green-grocers, and their greatness would be undiscovered even by themselves.

Painful as these facts are, we must accustom our minds to them, and modify our actions accordingly. If these giants of our day could not cope empty-handed with the fearful odds that our day opposes to every new aspirant, how can the average and undisciplined many be expected to win laurels, even if the wealth that crowns them be nothing more than food and shelter and raiment for themselves and the little ones?

To this our self-made men have their reply. They insist, perhaps not unreasonably, that the business world itself is the best business school, and they ask, what better can we do, even to-day, though the imped-



ment be infinitely greater than formerly, than to throw the boys into the midst of the struggle and let living circumstances and actual trial teach and develop them? Precisely here the real difficulty confronts us. The positions that are open to the rank and file of boys and young men are not such as give them progression and preparatory experiences. After five years they are no better fitted for an occupation commensurate with the developed powers of a man than after one.

Want of preparation or the possibility of it: this, then, is to-day a source of unlimited evil.

There is still, of course, such a thing as natural growth in business, but it lies within the reach of only a few and therefore furnishes no solution of the problem. Occasional instances like the following prove this. Some years ago the son of a wealthy iron-founder, having finished his studies at the city schools was given his choice of two courses. "You may go to college and take a profession if you desire it," his father said, "or you can enter business with me. But if you do the latter, it must be as I began. You must start at the bottom and serve a full apprenticeship at every step. Your wages will be those of the men at your side." The boy chose the latter course, and began by shoveling sand in the moulders' room. His father allowed no leaps, or neglect, or haste. "And now," concluded the gentleman from whom I have these facts, "that young man is one of the very best business men in his city, and every one acknowledges it. He is still under thirty, but there are few of any age who rank with him."

This was a case of progressive education. But then it was, as we all recognize, the extreme exception. The youth's father owned the industry. It would be rash to say that men were not left behind at each stage of the business who would have become equally skilled with the same advantages of promotion and responsibility. What we deplore is not that some enjoy this privilege but that the overwhelming majority have no semblance of it; and this way of letting almost everybody "chance it" with nearly a dead certainty of failure, is just what must be abandoned at whatever expenditure of money and effort.

Wealthy people are averse to squandering money and sympathy upon those who, as they say, waste the one and are impervious to the other. "We would gladly see the world better," some of them aver with an air of patronage for the person who supposes that it ever will be any better, "but what boots our effort? If we pay higher wages it is so much the more for drink. If the men who work for wages or a salary were fairly saying they might soon have a bank account, own their own homes, in fact be independent capitalists. But the trouble is they nearly all lack prudence and forethought."

We must beg the estimable persons who offer this ancient criticism, partially true and mostly false, to see that at least it cannot apply to that immense body of young men and women, the existence of which is admitted, who have no prospects of advancement and whose income is below the border line of respectable living, to say nothing of accumulation. Let us hold them—these persons of wealth who reiterate that their intentions are above reproach, that they would help their fellow-men generously if they knew a way—to their own declarations by showing them a way in which they run no risk of scattering their skilfully conjured thousands to the thankless winds.

We do not intend to discuss the disputed question whether society owes a man a living, but we accept without debate, and found our remedy upon it, the principle that society owes to boys and girls such an education as will enable them to gain for themselves a living, and one that is comfortable and attractive. We will briefly sketch the principles of such an education.

The most general and important principle, and the one as yet almost wholly neglected in schemes of education, is that the opportunity for training must be combined with the opportunity to earn a livelihood. Under any other proposition most of those whom we wish to reach could obtain no benefit. We take it for granted that manual training is to become a fixed element of public-school instruction. Suppose, with this as a groundwork, courses were arranged in the schools, so as to enable a child to be present only one-half of the time without loss of connection in his studies. If the course were continuous from morning to morning, and the same course were repeated in the afternoon, two sets of children could be provided for. Suppose, at the same time, that employers of children consented to engage two children half a day, each where they now have one for the whole day: the children would obtain both education and income. The employer would be benefited by having both fresher and more intelligent workers. The second principle, then, is that the public schools must develop an organic connection with the industrial world. The objection will quickly occur that the children's wages would thereby be reduced one-half, which they could not stand. If the absurd separation that we have made of education and the application of it, is overcome, the objection so far as it is real, will disappear. This will require a system of technical schools connected with the shops where the actual industry of the world is going forward, and that the most favorable avenue to these be the public schools. Here it shall be possible for the boy to pay his way, and very soon to do more than pay his way, while acquiring invaluable theoretical instruction. Our national industry calls for this higher training,



## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXIX.—Continued.

Princess Sidonie hastened to the door of the reception-room to meet the Sovereign. The Sovereign passed through the rooms to her study. He cast a glance at the open book:

"Who has made these marks?"

"Mr. Werner noted the most important passages for me," replied the Princess.

"I am glad that you make use of this opportunity to obtain instruction from so distinguished a man. Apart from the pedantic manner which attaches to his profession, he is a remarkable man. I wish, on account of his disinterested activity, to make his position as agreeable as possible, and I beg that you will do your best towards accomplishing it."

The Princess bowed silently, closing her hand convulsively.

"As it is impossible to bring him and his wife into closer relations with the Court, I wish you would invite them to one of your little tea-parties."

"You must pardon me, my most worthy father, if I do not see how this can be. My evening parties have hitherto consisted only of my ladies and the principal members of the Court."

"Then you must alter that," said the Sovereign, coldly; "you are not prevented from introducing into it one or other of our officials, with their wives."

"Pardon me, my father; as this has never yet happened, every one would remark that the change has only been occasioned through the strangers. It would occasion much ill-natured remark if an accidental visit were to upset what has been the acknowledged rule up to the present day."

"The consideration of foolish gossip shall not prevent you," replied the Sovereign, angrily.

"My gracious father must take a favorable view of the considerations which hinder my doing anything of the kind. It would not become me, a woman, to dispense with the habits and customs which my lord and father has considered binding upon himself. You have deigned to permit the attendance of Mr. Werner at your small dinners, and I could, without giving any uncommon offence, receive him at my tea-table. His wife, on the other hand, has never been brought into relations with the Court through your own sanction. It would ill become the daughter to venture what the father himself has not done."

"This reason is a poor disguise for ill-nature," replied the Sovereign. "Nothing hinders you from leaving out the whole Court."

"I can have no evening society, however small, without inviting the ladies of the Court," replied the

to say nothing of its value to the operatives and employers individually. "It is stated by those who have especially attended to preliminary instruction in engineering, that three years at colleges of this kind (technical colleges), combined with two years in the work-shops, turn out better men than five years apprenticeship in the latter."\* With this system it will be possible and safe to provide a sum from which to advance money to such boys as are in absolute need of more than they can make at the beginning of their course. They can be allowed to mortgage their future labor, and, since their prospects are better in connection with the school than anywhere else, the security may be deemed sufficient. This, in the main, disposes of the objection that was raised regarding the diminished income of those who attend school a part of the time. It will be well if the principle of progression is carried beyond the period of youth. No one will say that proficiency is properly rewarded to-day;† worse than this, it usually goes wholly unrecognized and unencouraged. This cannot turn out good workmen or good men, nor stimulate the young.

The cry of many, and particularly of the wealthy, is, "Do not increase the functions of the state." There is an alternative to this course, against which no one has any objections to offer. If individuals, those who have the means at their disposal, will apply the individual initiation they are so fond of talking about, to reform and improvement, the state will not be called upon. Otherwise—

## AMBITION.

BY LOUIS BELROSE, JR.

How long ago it is since hope was mine:

How long ago since first it seemed to me

As if, at most, a few short years would see

The full accomplishment of my design.

Alas, 'twas ere that loveliest of the nine

Fair fickle daughters of Mnemosyne

Had made a mock of my simplicity,

And cast me off, and left me to repine.

In those old times I dreamt my song must sway

The nations:—now, my life would not seem vain

If later (shaving, as I was to-day)

Some lathered lover of old rhyme should deign

To read my torn leaf twice ere cast away,

And with his razor dull forget the pain.

\* Sir Lyon Playfair, M. P., *Nineteenth Century*, Sept. 1888.

† As we have often had occasion to point out, the greater efficiency of the workmen of this country is not compensated. This is not extraordinary, perhaps, for the rule of progress seems to be that efficiency increases in a very much greater ratio than wages. . . . There is no reason why his (the workman's) share of the product should decrease as his efficiency increases."—*New York Times*, Editorial; Oct. 15, 1888.

\* Translation copyrighted.



Princess, pertinaciously; "and I cannot ask them to take part in a mixed society."

"I will take care that Miss von Lossau shall appear," replied the Sovereign, in a bitter tone. "I insist upon your conforming to my wishes."

"Forgive me, gracious father," replied the Princess, in great excitement, "if I do not obey you in this case."

"Do you dare to defy me?" cried the Sovereign, with a sudden outbreak of anger, approaching the Princess.

The Princess turned pale, and stepped behind a chair as if for protection.

"I am the only lady of our house," she exclaimed; "and I have in this high position to pay regard to considerations from which, neither as the lord of this Court, nor as my own father, you can release me. If your Highness chooses to make new Court regulations, I will willingly conform to them; but what your Highness requires of me now is not a new regulation, but an irregularity which is humiliating for me and for us all."

"Impertinent, insolent fool!" cried the Sovereign, no longer master of himself. "Do you think you have outgrown my control because I once let you out of my hands? I have brought you here in order to hold you fast. You are in my power; no slave is more so. Within these walls no power prevails but mine, and if you do not bend to it, I will break your stubborn spirit."

He approached her threateningly. The Princess drew back to the wall of her room.

"I know I am your prisoner," she cried out, with flashing eyes. "I knew when I returned here that I was entering my prison. I knew that no cry of anguish could penetrate these walls, and that a slave would find more protection among men than the child of a prince from her father. But in this room I have a supporter, to whom I often look imploringly; and if your Highness deprives me of the help of all the living, I call upon the dead for protection against you."

She pulled the cord of a curtain, and the life-sized picture of a lady became visible, in whose soft countenance there was a touching expression of sorrow. The Princess pointed to the picture and looked fixedly at the Sovereign.

"Will your Highness venture to insult your daughter before the eyes of her mother?"

The Sovereign drew back, and gave vent to a hoarse murmur, turned away, and motioned with his hand.

"Cover the picture," he said, in a feeble voice. "Do not excite yourself and me unnecessarily," he began, in a changed tone. "If you do not choose to fulfill my wishes, I will not insist upon it." He took his hat from the table, and continued, in a softer tone: "You are beloved by the citizens; the weather is as warm as summer, and promises to last. I will, on your birthday, arrange to have a morning concert for the officials and the citizens in the park. I will send

you a list of invitations through the Lord High Steward. In the evening we shall have a gala-supper and visit the opera."

The Sovereign left the room without looking at his daughter. The Princess followed him to the ante-room, where the attendants were standing. At the door she made a low curtsy. The Sovereign gave a friendly sign with his hand. The Princess then flew back into her room, threw herself down before the picture, and wrung her hands.

\* \* \*

The Princes were walking in the park, and the promenaders bowed and looked after them. The Hereditary Prince took off his hat with the dignity of a man; Victor touched his hussar cap lightly, and nodded sometimes familiarly to a pretty face.

"All old acquaintances," he began; "it is a pleasure, indeed, to be home again."

"You always were a favorite of the people," said the Hereditary Prince.

"I have amused and provoked them," replied Victor laughing. "I feel like Hercules with his mother earth, and am ready for any mischief. Benno, do not look so dejected; I cannot stand it."

"If you had, like me, to walk always at the same hour you would look so too," replied Benno, stopping before an empty water-tank, in which four little bears were sitting, looking at the public, who were throwing bread to them. The Hereditary Prince took a piece of bread from the keeper, who approached him hat in hand, and threw it mechanically to the bears. "And if you had by high command to show yourself every day as the friend of the people, and feed these stupid bears, you would also weary of them."

"Pooh!" exclaimed Victor, "it only depends upon yourself to make these louts amusing."

He sprang with one jump into the walled place among the animals, laid hold of the first bear as a sheep is carried to be shorn, threw it upon the second, and the third upon the fourth; a horrible growling and clawing began among the bears; they fought violently together, and the bystanders shouted with pleasure.

"Your hand, comrade," called out the Prince, to one of the spectators, who were watching him and giving vent to loud expressions of approbation. "Help me out."

The person called upon was our friend Gabriel, who held out both hands.

"Here, your Excellence, quick, that they don't catch your uniform."

Victor sprang lightly up, giving his supporter a slap on the shoulder.

"Thanks, comrade; if you ever get into a fix, I will lend you a hand too."

The people cried "Bravo!" with much laughter.



"You must force life into the place," said Victor. "If your father does not drive me away, I shall in a week make it as lively at your Court as I have done here in the bear-pit."

"I, meanwhile, have suffered for it," replied Benno, with vexation; "one man said to another, 'What a pity that that fellow has not as much courage!' of course meaning me."

"Never mind; you are the wise one. In the eyes of thoughtful people, your virtues shine bright when placed in contrast with mine. Now let me into your confidence. What lady of the theatre do you favor with your attentions, that I may not be in the way? I do not wish to interfere with you."

"Nothing of this kind is permitted me," replied Benno.

"Not permitted?" asked Victor, astonished; "what kind of tyranny is this? Has it become the fashion here to be virtuous? Then impart to me, at least, what other lady, from political reasons, may only be admired by me in the distance?"

"I believe that you have free choice," replied Prince Benno, depressed.

"What a blessing for me that I am not Hereditary Prince! But what has occasioned the Sovereign to invite me here so graciously?"

"We do not know; Siddy also was surprised."

"And I, fool, thought she had a hand in the game."

"If she had attempted anything of the kind, you would assuredly have had no invitation."

"That he does not like me is evident. I had a cool reception."

"Perhaps he wishes to have you married."

"To whom?" asked Victor, quickly.

"He has caused you to visit amongst our relations," replied the Hereditary Prince, cautiously.

"He? By no means. I was passed on from one to another, and everywhere treated like a nice boy. The whole was perfectly concerted."

"Perhaps one of our great matchmakers was at the bottom of it," said the Hereditary Prince.

"Not in my case, depend upon it. I am ill looked upon by the conclave of mothers of our country, who have in charge the feelings of our princely families. They would not stir a finger for me."

"If my father has not done it, or none of our relations, the Lord High Steward must have done it."

"Bless you for this supposition," exclaimed Victor.

"If he wishes to have me here then all is right."

"Have you spoken to him?"

"I have been with him; he talked to me about the campaign, and spoke in his usual friendly way, but nothing more."

"Then it was he, you may depend upon it."

"But why?" asked Victor. "What can I do here?"

"That you must not ask me; he favors me with little of his confidence."

"Why do you turn away from the pavilion at every bend in the path?" asked Victor. "Have you placed steel traps there? By Jove, what a glorious face! Look, you dissembler! So, you are become virtuous?"

The Hereditary Prince colored with indignation.

"The lady up there deserves the most considerate treatment," he said, moodily.

"Then that is the beautiful stranger," cried Victor; "she is reading. If she would only turn a look this way, that one might see more than her profile. We will go there; you shall introduce me."

"Under no circumstances," replied the Hereditary Prince; "least of all now."

Victor looked at him in astonishment.

"You refuse to present me to this lady? I do not need it," and he let go his arm.

"You are mad!" cried the Hereditary Prince, holding him back.

"I was never more in my senses," rejoined Victor.

He hastened up to a tree, the low branches of which nearly reached to the window, and with the agility of a cat he climbed up to the top. He looked up and perceived the Hereditary Prince, and an officer climbing up a tree. She withdrew from the window. Victor broke off a switch, and touched one of the panes. A bell rang, a window was opened, and Gabriel looked out.

"Always in the air, your Excellence?" he cried out; "what are your Excellence's commands?"

"Tender my respectful compliments to your mistress, and request her to favor me with a moment's interview upon urgent business."

He appeared, with her usual serious countenance, at the window, the servant behind her. The young gentleman held on fast by one hand, and raised the other to his cap.

"I beg your pardon, Madam, for choosing this unnatural way of presenting myself to you, but my cousin down there has sent me up here against my will."

"If you fall, Sir, you may take with you the full conviction that it was unnecessary to climb the tree: the door of the house is always open."

He retreated, and Victor bowed again.

"The lady is quite of my opinion," he cried out, reprovingly, to the Hereditary Prince, "that you have done very wrong in keeping me from the door."

"There is no way of getting out of this scrape but by going in at once, and apologizing," replied the Hereditary Prince.

"That is exactly what I wish," cried Victor. "One must always let people know what they want."

(To be continued.)



## BOOK REVIEWS.

INVENTARIUM EINER SEELE. By R. von Suttner. Second Edition. Leipzig: 1888. W. Friedrich.

Baronin B. von Suttner is one of the most forcible authors in German literature. Her special field is the Novel and she discusses every subject in a philosophical spirit. The present book shows an unusual facility of treating psychological topics in a popular way. 'The Inventory of a Soul' is not that of her own soul; but of a man, as hundreds may exist. Madame Suttner is of aristocratic birth, but she has freed herself from the prejudices which so often attach to rank, and professes openly her faith in the new ideals of progressive humanity. The book contains many thoughtful passages, of which the following one may be quoted:

"We look at a portrait of ours taken in early youth and we ask with a regretful murmur upon our lips: 'Was I really so pretty?' We read a long forgotten poetic effusion dating from the same period of life and we often ask: 'Was I really so silly?'"

"Fortunately our mental parts do not fade away like the corporal beauty of youth: every new experience, every newly-thought idea furrows the forehead with a fresh wrinkle and enhances the worth and extends the power of the mind. And so at the sight of our faded photographs and tattered letters, we too will feel the desire: 'Ah, that I now could look as I did then!' yet scarcely ever say: 'Ah, that I could now write as I wrote then!' People who lament over so-called 'lost illusions' and wish back the ingenuous simplicity of their former ways of thought, are in a stage of transition merely, which at some time or other, when they have attained perfect clearness of mental vision, they can only smile at."

The *Art Amateur* for January gives us a foretaste of possible enjoyment in its description of the Metropolitan Museum of New York. The noble building and beautiful halls are well filled with objects of art and of decoration, while the Loan Collection offers treasures of modern art from many private galleries.

Greta reports from Boston very handsomely of the collection of prints, etchings, and drawings of Albert Driver, arranged by Mr. S. R. Koehler, and speaks well of Miss Whitney's statue of Lief Ericson. We should be better pleased with a serious criticism—however severe—of the Exhibition of Water Colors by Women than with the smart style of comment which better befits the hasty paragraph in a newspaper than the columns of an Art Journal.

The Exhibition of the Academy and the work of American Etchers are carefully noticed in detail.

The lively "letter to a young lady who asks if she can learn china painting," although she cannot draw, is full of good suggestions. We hope she will read between the lines, and see that she had much better learn to draw, if she wishes to do any work of value.

The section on Amateur Photography is always welcome to those engaged in this fascinating work, which is doing a great deal in bringing out interesting effects and in transcribing the phenomena of nature for future use in Art.

The number is an interesting one. We feel grateful to the editors for going steadily on with their work through the holiday season, instead of devoting their space to subjects only appropriate to the time.

## NOTES.

Horace C. Bennett delivered a lecture "No Sin, No Crime" at the Chicago Secular Union on Saturday last. He criticized the present attitude of our legal institutions toward criminals.

Chas. A. Wenborne, successor to Moulton, Wenborne & Co., of Buffalo, N. Y., will publish an authorized American edition of Laurence Oliphant's latest work, 'Scientific Religion, or Higher Possibilities of Life and Practice.'

Mr. Wm. M. Salter's interesting lecture, "Christmas From An Ethical Standpoint," is now published in pamphlet form. Address, C. J. Errant, 24 Beethoven Place.

Mr. Daniel Greenleaf Thompson, the new President of the Nineteenth Century Club, is about to publish an enquiry into the fundamental principles of social ethics, and a discussion of the trend of social evolution. The title of the work is: "Social Progress," to be issued shortly by Longmans, Green & Co. Mr. Thompson declares his belief that social progress can be attained only through the perfection of social liberty.

In a lecture upon "The Philanthropic Work known as 'The New York University Settlement, and the Project for University Extension Lectures,'" Dr. Morrison I. Swift discusses the efforts on the part of the educated and prosperous to reach the lowest classes through such movements as the "Toynbee Hall" and "People's Palace" in London, and the Forsythe Street Work in New York City, in which Dr. Swift has taken an active part. Dr. Swift is a contributor to THE OPEN COURT, and an essay by him appears in the present number, discussing the education of the youth of to-day as preparatory for the work of life.

We are in receipt of a delicate piece of literary criticism by Dr. Daniel G. Brinton, of Philadelphia, entitled: "Facettes of Love: from Browning."—being the Introductory Address at the Opening of the Browning Society of the New Century Club, of Philadelphia, November 12, 1888. We quote from it the closing remark of Dr. Brinton, which we find to express a thought that THE OPEN COURT strives to realize. "I once wrote a book," says Dr. Brinton, "upon that sentiment which prompts man to make for himself religions and to satisfy his mind about such things as soul, God, immortality, and the like. I closed the volume with the prediction that he will attain such satisfaction 'only when he rises to a practical appreciation of the identity of truth and love and life.' Some critics passed on these words as meaningless. They yet lack philosophic development. Nevertheless, I repeat them in closing this address, and I leave it to you to decide whether they do not embody the highest teachings of the two greatest poets of the Victorian age, Browning and Tennyson; and as I turn their jewelled pages I feel borne in upon me the truth of those sweet and wise words of Plato: 'He who is led by the touch of love walks not in darkness.'"

Ex-Governor Koerner, of Belleville, Ill., writes to us: "In a book entitled 'The Art of Conversing with Men,' by Baron von Kniggy, first appearing in 1778, and since then republished in several editions, and which at the time made such a sensation as to be translated into nearly all civilized languages, the author devotes in conclusion a chapter regarding men's treatment of animals, of which we give the following passage, as proof that *Evolution* seems to have been in the mind as a vague idea at least of many thinking persons: 'If people who so often wantonly torment animals would consider that they have been created by the merciful father to supply our wants, and that no living being has a right to sport wantonly with the life of a fellow creature; that an animal is possessed of as acute feelings of pain as man and perhaps is affected even more sensibly by tortures than ourselves, because its whole existence is generally believed to depend upon sensual feelings; that this existence perhaps is the first step which it takes upon the scale of creation to ascend gradually to the state in which we are, and that cruelty against the brute creation imperceptibly leads to cruelty against our rational fellow creatures.'"

[We must add that the general conception of evolution was more common to the end of the eighteenth century than is generally supposed, and Mr. Koerner's quotation is proof of this fact. One of the first advocates of man's origin from an animal existence was Herder.—Ed.]



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ERNST MACH

Ernst Mach (Professor of Mechanics at the University of Prague, author of several works explanatory of the history and philosophy of mechanics, and the first authority in his branch) explains in his essay *Transformation and Adaptation in Scientific Thought*, (in Nos. 46 and 48), one of the most characteristic ideas of modern science—an idea that lies, so to speak, in the atmosphere. "Knowledge," he says, "is an expression of organic nature." The law of evolution, which is that of transformation and adaptation, applies to thoughts just as well as to individuals or any living organisms. A conflict between our customary train of thought and new events produces what is called the problem. By a subsequent adaptation of our thought to the enlarged field of observation the problem disappears and through this extension of our sphere of experience the growth of thought is possible. Thus the happiest ideas do not fall from heaven, they spring rather from notions already existing. From this standpoint the narrow conception of egotistic views disappears. "The person" is comparable to an indifferent and symbolical thread on which are strung the real pearls of life—the ideas that make up the changing content of consciousness. Humanity in its entirety is like a polyp plant; the material and organic bonds of union have been severed, but by this freedom of movement, the psychological connection of the whole has been attained in a much higher degree.

PROF. E. D. COPE.

In Number 33 Professor E. D. Cope treats of "Evolution and Idealism," and finds in the evidence of evolution the refutation of the doctrine of idealism. He concedes that much of what we consider the objective world is unreal and has no existence, except, as we perceive it, like the snakes, for instance, to the victim of *delirium tremens*; and he agrees that "the properties of matter" owe much of their character, and even their existence, to our senses, which give matter all its qualities, or, at least, modify and change them according to the number of our senses and their ability to perceive. Yet, for all that, he says: "If a given supposed object be purely a mental state on the part of the subject, a rational cause for the production of that state is wanting."

With great self-confidence, Professor Cope says: "Evolution gives the *coup de grace* to idealism of the consistent type. In the gradual unfolding of organic life it sees the two universal facts, subject and object. It sees them interact and influence each other," and further on he says: "It is equally competent for the materialist to deny the existence of mind as for the idealist to deny the existence of matter. The materialist bemoaning the imperfection of the senses may pronounce them to be one by one, incompetent witnesses, and declare them to be illusions. But the fact is, both exist, object and subject, matter and mind."

WILLIAM I. POTTER

In the leading essay of No. 1, Mr. Potter discusses the question of the relation of individual existence to the aggregating power and well being of society. Nature in this matter should be our teacher, and the spinal world-plan of nature is the method of differentiation. It is a process of concentrating the forces of existence which is done through the process of self-preservation. This principle of selfishism is means only, not an end. Without it there would be stagnation, but the individual organism does not exist for its own sake. Nature's aim is higher, broader, richer life. The end of individual existence is the common good, the general well-being, and here is where the law of ethics and the obligations of religion bear upon social problems. Individual self-interest and enterprise only furnish the rough materials for the meliorations which mark the progress of the higher civilization.



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## HENRY GEORGE AND LAND TAXATION.

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What a glorious idea: the fatherhood of God, the brotherhood of man, and a millenium on earth by the simple means of a single tax on land! That is the promise contained in Mr. Henry George's doctrine, so brilliantly set forth in his *Progress and Poverty*. I have read the book—nay I have devoured it. There was so much truth in it, and, alas! so much impossible fairy-land that I began to doubt. It is a most fascinating work on political economy, and I am under the spell of its eloquence still. The line of demarcation between reality and dreamland is not easily drawn where both are so closely blended.

The book contains a doctrine which I learned from somebody, or some book, many years ago, and which still clings to me, although entangled with many misgivings. It is that of abolishing the tariff and the whole system of indirect duties, and putting all taxes on land. I am told that the idea was first proposed by the French economists called physiocrats, who conceived the directest way of taxation the best. They compared the social growth of a nation to that of a tree which derives all its sap and strength from the roots. The roots are agriculture, the stem is the population, the branches are the different industries, the leaves are commerce, and the blossoms are the sciences and arts. If but the roots are sound, let nature take care of the rest. The leaves, the blossoms, and the fruits, how distant they all appear from the roots! and yet they are all in closest connection; the leaves draw all their juice from the roots. There is no need of protecting the leaves for the sake of the roots; and even if branches are torn off by the storm, the injury is not serious, and the work of restoration immediately begins if the roots have not suffered.

While Mr. George's enthusiasm animates and encourages me, I think I can see a flaw in his policy. I believe in the justice and practicability of land taxation. Let land be taxed according to its value, and remove the many duties on other quarters which are obstacles to progress and weigh heaviest on the poor. I have no other argument for my view than that it seems to me not unjust, and not impracticable. My proof would be a fair trial. I trust it will work well and commend itself especially to those who start in

life. As land would lose in value, if burdened with taxes, it would afford to a poor man a greater opportunity to take to farming. All machinery and other products of industry would be cheaper, if the prices were not, as is the case now, artificially raised, so that a full dollar in the United States goes on every seventy or sixty cents, or even less, in England and in the world's market. Money would be dear, and if a little dear money-buys much goods, a start in life will be easier in every field.

So far as land taxation, its justice and practicability are concerned, Mr. George and I travel together. But almost from the beginning in Mr. George's arguments our roads part. I believe that a radical defect in this plan lies in the mistake that a tax may be converted by political magic from a burden to a blessing. Taxes may be unwisely and unfairly levied, and the burden of them thereby increased; but in their wisest and most virtuous form, they are a burden at the best. Believing this very important premise of his argument to be an error, I doubt the economic soundness of his conclusions. To the man who buys land, it will be a boon to have it on easy terms, but to the farmer who owns his farm, land taxation will always be felt as a burden.

But there is another fundamental error. Mr. George calls his book "*Progress and Poverty*," and denounces every progress under present circumstances as driving a parting wedge between the rich and the poor. Every progress, he maintains, benefits the rich only, it makes them richer and oppresses the poor worse than they were before. This Mr. George has not proved, and there is little probability that he ever will prove it, for it is not true and very likely the contrary may be proved most easily. Progress is always beneficial to the poor as well as to the rich. A poor man would consider himself wretched now if he did not enjoy certain comforts which were luxuries in former days.

The arguments upon which Mr. George builds his system are patriotic and humane. He bases it on the idea of the fatherhood of God and proclaims that the earth is God's impartial gift to all the children of men. "It is in the scripture, Trim," said Uncle Toby. So Mr. George believes that "The earth is the Lord's and the fulness thereof," and from that sublime text he preaches a very old agrarian gospel in a newer



form of words. It is possible that our Saxon ancestors when they took possession of Britain cherished similar ideas, as did the children of Israel in the time of Moses. Whether they did or not, they certainly acted in that way; they abolished the land monopoly, these of the Cananites and those of the Britons, and both of them established another land monopoly of their own. They took possession in the name of their gods, and when the Normans invaded England they also came in the name of the Lord, for the Pope had blessed their leader's sword.

All these arguments from beyond the clouds are of a very doubtful nature and we should not employ them so long as we have other arguments which are more palpable and not so sentimental. Wherever they are employed I am apt to be prejudiced that there is something wrong; and if the cause for which they are used is not wrong, there must certainly be a lack of proof or a flaw of logic in the man that argues.

Mr. George makes a difference between Land, Capital and Labor. Land is the condition of our existence as well as of our labor. Labor creates all values, and capital is as it were, stored up labor.

Mr. George points out the difference between land and capital, but he loses sight of the fact that land in itself and apart from labor has no value whatever. It acquires value only by the application of labor. It is true that an unimproved lot in the city has value, but what is that value otherwise than the labor of those who live there. I agree with Mr. George that that value should be taxed, but even in this case it is labor that is taxed, and not the land. I would not buy a hundred square miles of most fertile land in Central Africa for a dime if it could be had for that price, because it is useless; it is without value so long as there is no hope to make it valuable through labor. If only land should be taxed apart from improvement, many lots on the lakeside of Chicago should be free of taxation, for they consist of improvement only. The Dutch people should be free from all taxation, the districts where swamps have been before ought to be a forbidden ground to tax gatherers. In truth all lands under cultivation are like Holland, they have been gained or improved by labor and the sum total of their labor value is rarely covered by their market value. If only land should be taxed apart from improvement, as Mr. George proposes, this would be an abolition of taxation altogether.

While the basis of Mr. George's theory is vague and unsubstantial, the consequences which he prophecies to follow are fantastical. It is the abolition of poverty and the beginning of a millenium upon earth.

Mr. George's optimism is enviable, it is like that of a child. Here he places himself in one and the same line with the many other reformers that have

found a panacea for all evils in the world. But the promises are so positive, that Dr. McGlynn says, he would not hesitate, if he could, to introduce at once such changes as would realize this single tax theory. Does the Doctor forget that all sudden changes must bring about a most dangerous crisis. Even a sudden change for unmixed good may be fatal. A consumptive person has to be accustomed to good air by degrees, and a half-starved man must take his first meal by small bits. Moreover, are not those who have invested their capital, *i. e.*, their stored-up labor in land, entitled to be protected in their possession acquired under our present system. Is it just to deprive a farmer of his farm which he has bought with the toil and sweat of his or his fathers' life?

These difficulties are not insurmountable, although they must for a time impede the introduction of land taxation. Land taxation can easily be introduced by slow degrees, and a compensation may be given to those who would suffer unfairly by the change. But even granted that the advantages of land taxation would be great, I fail to see how it can produce such a glorious state of things as Mr. George hopes for.

Is he so utterly blind to the fact that poverty has many sources, (of which I confess our wrong system of taxation is a very important one,) and that after the removal of this, there are a hundred others to fight? If there is one chief source of poverty we should not seek it in circumstances but in man. The savage is dependent upon circumstances, but civilized man should be able to govern circumstances, and use all his mental and moral powers to make the best of his situation by wise foresight, economy, thrift, and industry, instead of letting things go until circumstances have improved. I know of one panacea only; it is man's obedience to the moral laws. But the application of this rule, simple though it sounds in its generalized form, is so complex that it hardly deserves the name of a panacea. Land taxation even if it had in its consequence all the impossible blessings it is supposed to have according to Mr. George, would be of no avail to him who believes that he is the mere product of circumstances, and who does not know that a man's character is the most important factor among the conditions that shape his fate. If a man is aware of that, he will dare to become the master of the circumstances that surround him. The most urgent step forwards is the moral elevation of man, and progress is no progress unless it is accompanied by a moral progress of man that makes him stronger and more humane.

#### THE SELF-EVIDENT.

BY DAVID NEWPORT.

The new translation of the Old Testament has restored the Hebrew reading of Psalms VII, 5: "Thou



hast made him (man) but little lower than God, and hast crowned him with glory and honor," and the scriptures largely treat of "the angel of the Eternal" as the soul-life posited in man, and of all contrary to this as being of the adversary. Jesus speaks, we read, of the divine nature in man as something which is correlate, in "continual" correspondence with Deity—"Their angels do continually behold the face of the Heavenly Father." This doctrine I hold to be the quintessence of the thought of Jesus, and would inquire whether it is not something which we can apply to our experience, and know that what the great Artist has said is true: "There is a divinity which shapes our ends, roughhew them how we will."

Now, the consensus of finite intelligence is so constituted that it regards as a waste of effort all attempts to demonstrate that which is self-evident; and Infinite Power is one of those self-evident facts which all *intelligent* men perceive,—infinite energy asserting itself in all things each day of our lives! It is also evident that there can be no increase to infinite power, and that the only limit which can be assigned to it is self-limit. In other words, that there cannot be two infinite powers, as that would imply what in the *nature of intelligence* is self contradictory, and therefore is absurd and unthinkable. Infinite power must hence be without "*variableness or shadow of turning*," and is eternally the same in itself, and in all its effects. But finite or *derivative* power, and intelligence, is conscious of increase in knowledge and in intelligence. Man is constantly converting the unknown into the known—has a wonderful facility for progress, increase, and evolution; he is continually finding out that which in phenomena is new (original) to himself. Amongst his faculties is the faculty of *awareness*, wherein he knows that all his powers and faculties are derived powers and faculties; consciousness in him not only proves that he is an intelligence, but also that he is an inhabitant of a universe of infinite intelligibility, *in which he is being developed!* He knows that he is not a first cause, but that he is an effect from an infinite cause and power: he knows something of his genesis, and of the impact of the two instrumental causes which called him into conscious physical being, and is aware of the persistency of that being,—that through the annual total changes of his animal body, that he *persists* in being only himself!

He knows of the possession of a common consciousness, and of a religious (spiritual) consciousness, and he is aware herein of being evolved (developed), by a power not himself which makes for consciousness, as well as for righteousness; and thus he knows that he possesses a moral nature, as well as a spiritual nature. And herein let us apply a criterion of that great and good man John Woolman, who wrote thus one hundred

years ago: "There is a Principle, which is pure, placed in the human mind, which in different ages and places hath been called by different names; it is however pure, and proceeds from God. It is deep and inward, confined to no form of religion, nor excluded from any, where the heart stands in perfect sincerity. In whomsoever this takes root and grows, they become brethren." It may be objected that in this citation I am wandering away from the self-evident; but if this be the case, this is one of those truths which comes to man by reason of development and evolution, and hence belongs to his capacity and nature by reason of affinity and assimilation, and a man is as his affinities are! But let us keep to what Herbert Spencer calls the "common consciousness" or what the Apostle calls "an animal man," which man needs development, and evolution, in order that he may become a "spiritual man," and thus come to that condition of *awareness* wherein he knows of a "pure principle" within himself which "*proceeds from God*."

We have seen that infinite power comprises all power, and therefore admits of no power operating upon it, or external to it. Infinite space proves this, as it comprises all space; and as a portion of space is a part of infinite space, so is the finite a part of the infinite, or of the ALL!

Infinite power, then, includes all finite power and its issue, because every effect must inhere in its cause; therefore the process of evolution—unfolding!—is but the action of infinite power upon the derivative and finite—man's ideas and discoveries not being original, as he is only finding out more and more of the infinite and of the eternal. This being true, therefore infinite power must also be infinite intelligence, because of the reason just assigned, that infinite power includes all power, and therefore all intelligence; *Infinite Intelligence being thus self-evident to finite intelligence!* He being revealed by Himself, as are all things which He has produced, each thing by itself, to intelligent, conscious man!

And when we get rid of the idea of a Creator in the sense that there ever could have been a time when cause was and effect was not, then we come to the true idea of infinite intelligence, from whom we derive impress, likeness, and being. When we come to this through what Herbert Spencer calls "the religious consciousness" (which is a self-evident power in man); when subject and object coalesce through affinity: then man becomes endowed with spiritual mindedness. He lives to God, and thus he becomes possessed of God-power, and receives thus an endowment, and becomes identified with that principle which dwelt in Jesus of Nazareth, which is the eternal Christ of God. In such a man the two worlds meet, he is now a representative of both, and becomes acquainted with the



narrow way and strait gate which leads unto that life which the man Christ Jesus symbolized as "the Way." It was over this lack of spiritual vision that Jesus wept,\* and on account of which "he went up into a mountain apart to pray; and when evening was come he was there alone." He prayed unutterable prayers that the eyes of their souls might be opened so that they might realize Christ within, and thus, experimentally, through development, become acquainted with that *power* which dwelt so richly in him of Nazareth! And this *power* is divine power, or divine inspiration, and is as universal as man is universal, and is a *self-evident fact to all men who live in infinite intelligence*. Suppose that this power in man as a finite and derivative being is in embryo only? What does this prove? Why, it only proves his possibilities, his capacity, his nature for increase and evolution, and that he is thus what the All is, absolutely.

Latent and invisible the divine seed may be, yet it *never ceases to progress*,—to evolve, to unfold, and therefore it is immortal, and survives that appearance which men call death!

Jesus told the Jews, "Ye understand not the scriptures, or the power of God." And one great cause of the irreligion which exists, is in thus misunderstanding Infinite Power; expecting it to do for us that which is inherently impossible, as God is self-limited, for the reason, as we have seen, that there can be but ONE infinite. The old idea makes him a very poor workman—"making man and then repenting having made him, etc., etc." Now as there can only be one infinite, all things have, of necessity, to be finite and derivative, and to suppose that it could be otherwise, is to be absurd. How much man has perplexed himself over the enigma of evil, as to *how* it came into the world? Now all things which proceed from the Infinite, are simply *minus* the infinite, and in this sense only they are imperfect; for perfection alone is the attribute of the Infinite. In the infinite variety of effects which flow from the infinite cause, from eternity to eternity, all are good in the sense of the "*restoration of all things*"; finite beings seeing only in part—the All they cannot see!

"God loves from whole to parts; but human soul  
Must rise from individual to the whole."

To the mind of the All, evil cannot be an end, it is simply an incident in the endless variety which flows from the Eternal Mind. Man is so constituted as to feel keenly the evil to which he is subjected in this world; and death is the *sum* of all evil to him. And he becomes victorious here only when he sees in this "*the restoration of all things*,"—when death becomes a passport to a higher and better life,—when he pos-

sesses the *knowledge to believe* that he is *being perfected* in the endless processes of Infinite Intelligence; then, and only then, can the problem of evil be solved to him in an endless "*restoration of all things*," which in other language means that man has an unending and an immortal capacity for increase, progress, and evolution, and never ceasing to progress, he of course survives the grave, and is immortal.

The Philosopher (the Friend), is a Phenomenist and a Noumenonist also, and hence he sees not only with his eyes but with his soul also; and above all he is an Optimist,—he perceives that our nature it is that makes us what we are, and that if we were different from what we are we should be other beings. Man is as he is, if he were different he would not be man! And his progress proves that remedial means are being constantly applied to his environments, to correct them,—that he may outgrow them (errors and wrong), and thus be constantly putting off inferior conditions, and putting on superior—thus to become in time what Confucius called "The Superior Man"! And the superior man does not foolishly charge Deity with not having done the best He could in the production of man, and of all things which have "come forth and proceeded from Him;" on the contrary he *co-operates* with Him, and with His divine order, in its evolutionary processes for the elevation of man and for his immortal unfolding!

Socrates in speaking of the divinity in man, The Soul, said that it was "modeled after the eternal idea of the good, the true, and the beautiful." And that wonderful man of the Elizabethan age, thus discoursed concerning him:—"How noble in reason! how infinite in faculties! in form and moving how express and admirable! in action how like an angel! in apprehension, how like a God!" After a period of depression and "inward sufferings," the prophet George Fox "saw the infinite love of God." "I saw also," he writes in his journal, "that there was an ocean of darkness and death; but an infinite ocean of light and love, which flowed over the ocean of darkness. In that I saw the infinite love of God, and had great openings." And Whittier discoursing upon this theme thus sings:

O Beauty, old yet ever new!  
Eternal voice and inward word,  
The Logos of the Greek and Jew,  
The old sphere-music which the Samian heard!

Truth which the sage and prophet saw,  
Long sought without, but found within,  
The law of Love beyond all law,  
The Life o'erflowing mortal death and sin!

Shine on us with the light which glowed  
Upon the trance-bound shepherd's way,  
Who saw the Darkness overflowed  
And drowned by tides of everlasting day.

\* "And he groaned deeply in his spirit, he says, Why does this generation seek a Sign?" Mark viii. 12.



## THE UNIFICATION OF RELIGION AND PHILOSOPHY.

BY M. C. O'BRYEN.

"All scripture," writes the apostle Paul,\* "is given by inspiration of God." This claim is nearly identical with that which the Brahmans of India advance "to establish the divine origin and the absolute authority of the Veda."† The general public opinion of Americans notwithstanding, it is by no means a novel, certainly not a unique pretension. Arranging them as nearly as possible chronologically, we have the following order of Scriptures or sacred books of mankind: (1) the Veda, the Bible of Brahmanism; (2) the Zend-Avesta, the Bible of Zoroastrianism; (3) that portion of the ancient Hebrew legislative writings containing codified laws or ordinances which modern exegesis has identified with the most marked legislative stages in Hebrew history; (4) the Taote-King, the Bible of Taoism; (5) the Tripitaka of the Buddhists; (6) the New Testament of Christianity; and (7) the Koran of Mohammedanism. To show that the inspiration attributed by Paul to the sacred books, the hagiography of his own race, has also been claimed for the Veda and Zend-Avesta, I will once again have recourse to one who on this matter is able to speak "as one having authority." Writing of the Brahmans, Professor Max Müller affirms that "they maintain that the Veda existed before all time, that it was revealed by Brahma, and seen by divine sages, who themselves were free from the taint of humanity.... The Brahmans, in order to meet all possible objections, have actually imagined a series of sages, the first quite divine, the second three-fourths divine and one-fourth human, the third half divine and half human, the fourth one-fourth divine and three-fourths human, the last human altogether. This Veda, then, as handed down through this wonderful chain, is the supreme authority of all orthodox Brahmans. To doubt the divine origin and absolute authority of the Veda is heresy."‡ But little less supernal, comparatively, was the origin claimed for the Zend-Avesta, the medium of this revelation being "considered worthy of a personal intercourse with Ormuzd; he receives from Ormuzd every word, though not, as Dr. Spiegel says, 'every letter of the Law.'"§ We need not further allude to this matter, since the fact that a divine origin is claimed for other revelations than the Christian may be said almost to be universally recognized. The comparison and collocation of alleged theophanies have only been made to convince the perhaps timorous inquirer that in this question of the settlement or definitive disclosure of religion we have no other guide to direct us than reason. In Butler's "Analogy of Religion,"—which is the

only philosophical theodicy or God-justification extant in our language,—we find it expressly stated that "Christianity is a scheme quite beyond our comprehension," while the late Canon Mozley affirms of that proof of a revelation which is contained in the substance of that revelation that "it cannot reach to what is undiscoverable by reason."

Here, then, we meet with a serious check *in limine*, on the very threshold of any proposed investigation of religion in accordance with the scientific method. We are brought face to face with ἀκατάλητοι or "incomprehensibles" like those which the Athanasian creed dares us to refuse or reject on the peril of everlasting perdition. We have, however, learned long since that with respect to human knowledge the proverb holds good: "nothing venture, nothing have;" we risk the anathema or the excommunication, holding, as we do, that for all things known and unknown, the commonplace and the apparently transcendental, man is or will be able to furnish a rational explanation. If it be sound theology to assert, as does Mozley, that what transcends human reason cannot be proved or disproved by human reason, it is no less sound philosophy. Given man as the centre, the universe, infinite though it be, is the periphery; but there is nothing in the word *infinity* or *eternity* so awful or so tremendous that the abstract thinker need despair, that ultimately human reason will be transcended at all. Herbert Spencer, arguing for the relativity of knowledge, arrives at the conclusion that "the reality existing behind all appearances is, and ever must be, unknown."¶ And Sir W. Hamilton says with respect to the impossibility of ultimate knowledge: "With the exception of a few late Absolutist theorists in Germany, this is, perhaps, the truth of all others most harmoniously re-echoed by every philosopher of every school."‡ If it be a truth it is, and must necessarily be, a very pitiful one. "All that we know is, nothing can be known!"

*Scire nihil—studium, quo nos latamur utriusque.*

Surely the terrestrial Nirvana of the arch-pesti-mist, as conveyed in the formula of "the denial of the wish to live," would be the logical outcome of Agnosticism *in excelsis*. Yet it seems to me that both the Conditional and the Absolute philosophers appear like unskillful swimmers (*rari nantes*) in a vast whirlpool. Let us for a moment examine their formulæ or watch-words. The Absolutists say, *Noscendo cognoscitur, ignorando ignoratur*,‡ the Relativists affirm, *Noscendo ignoratur, ignorando cognoscitur*.§ These antinomies have perhaps a certain scholastic sound, but in reality they throw no light whatever on the subject of absolute and relative knowledge, being of no greater value

\* II. Tim. iii. 16: θεόπνευστον, God-breathed or inspired.

† Max Müller: "Chips from a German Workshop."

‡ "Chips," etc., ed. 1867.

§ Ibid.

\* "First Principles," 2d ed., part I. c. iv.

† Spencer, *Idols* cited.

‡ "To knowing it is known; in not knowing it is not known."

§ "In knowing it is not known; in not knowing it is known."



in this respect than would the knowledge of *barbara, celarent, bekardo, bramantip*, or the other moods of the syllogism to an opposer of Home Rule in the Parliament of Great Britain. Assuming that the universe is man's periphery,—and with respect to man, the assumer and observer, what other alternative assumption is open?—then its centre is man, and to each individual of the race, whether wise or foolish, learned or illiterate, the kosmos-centre is his own consciousness, his own egoity. This egoity, so far as individual determinate consciousness is concerned, can have no appreciable connection with non-recognizable things or no-things, that is to say,—as does the Bampton lecturer,—with those *incognita* which “lie beyond human reason.”\* In this dilemma what course are we to follow? One can hardly avoid thinking of that old syllogism which has for generations done duty in so many text-books of logic: “All oriental histories are difficult to expound: the Bible is an oriental history: therefore, the Bible is difficult to expound.” If we can neither comprehend nor by the use of reason discover the “ways of God to man,” who is to prescribe for us the direction in which our faith shall be exercised? Must we be content with the religion of our parents, with the creed of accident and of circumstance? In that case Brahmanism, Zoroastrianism, Judaism, Christianity, and Mohammedanism are equally imperative; so that the only test of intrinsic merit would be a relative one, to be modified and affected by considerations of latitude, of climate, of customs, and of physical necessities.

With the utmost respect for the memories of Bishop Butler and Sir William Hamilton, I refuse to acknowledge the *ne plus ultra* either in religion or philosophy. It is certainly true, as D'Holbach said, that in abandoning experience, or the lessons of experience, to pursue imaginary systems, man invariably deludes himself. “He is the product of nature, he exists in nature and is bound by her laws, from which he cannot deliver himself, and beyond which he cannot range, even in thought. All in vain would his mind soar away from the visible world; necessity, imperious necessity, compels him to return.”†

It is certainly true that man exists in nature, the all-generator, but it is equally true that nature exists in man; so that in this mutual connection and interdependence the all-generator becomes in turn engendered. It was Sir William Hamilton who wrote on the wall of his study, “In the universe there is nothing great but man; in man there is nothing great but mind,”—thus making the human standard the *supreme* criterion of all things. The raiment in which we hold things, even the very qualities or properties with

which we endow them are made by us, our own apparent physical conformation and anatomy being an apparition of the brain. To many readers of this paper, who are familiar with the “Critique of Pure Reason,” I need hardly say that the great German philosopher in considering the possibility of science or of “synthetic judgments *a priori*” insists on our recognition, as a primary essential, of the truth that “thought and things are not diverse or dualistic.” This, I take it, might be used by the absolute Idealist as a text, since it clearly identifies man's universe with man's egoity, while the context renders it impossible to dissociate what we term the subjective and objective phases of the mind. “The one (*thought*) does not exist apart from the other (*things*). Objects are not passively apprehended by the mind, as something distinct from it, but are actively constructed by it. Intelligence is present from the first in this creation.” What intelligence is present from the first? Our own, of course, not that of a Being external to ourselves.

We gather, therefore, from the passage just quoted that the all-mirroring is also the all-creating mind, and thus we are taken far back into the past, beyond Kant, Hume, and Berkeley, to the Protagorean ontology, to the simple yet sublime affirmation that man is the measure of all things. The revelation brought by this realization is, as Paul says of the Bible, God-breathed or inspired; but the Deity is incarnate in man, so that we may cry with the poet Swinburne—

“Glory to Man in the highest, for man is the maker of things!”

Such considerations are in one sense atheistic, but not anti-theistic, in their signification. They enable us to eliminate from the sphere of practical duty all accountability to an exacting Deity, they free the mind from the burden of anxious thoughts respecting a future existence independent of organization, and they induce the corollary that, since he is to himself the centre of the universe whose overpowering vastness is produced by his own cerebration, man must necessarily be the arbiter of his own destiny. The feeling of littleness acknowledged by Carlyle, and even by Kant in that well-known expression of supreme admiration of the stellar universe and moral nature of man, will not exist in the mind that clearly recognizes that if the universe be in us then God and,—as Jesus said,—the “kingdom of God” must also be within us.

*Est Deus in nobis agitante coelestinus ipse.*

It is, I venture to think, in this unification of the ego and the non-ego that philosophy will ultimately be firmly and finally established, and religion and science be reconciled. By unification I mean the actual recognition of the truth that the ego, the self, is an integral portion of all things, and that the All,—the twinkling stars which form the “poetry of heaven,” the waves of the ocean, the flowers and grass,—“in whom

\* Bampton Lectures, 1865.

† Quoted from memory.



we live and move and have our being," is also in us. This conception is surely as consolatory as it is undeniably beautiful, yet it is purely monistic or materialistic, for the Protagorean and Berkeleyan ontology, by which the whole universe is reduced to egoistic Idealism, cannot be dualistic. The recognition of the fact that mind is the function of a particular corporeal structure, that its *proplasm*, or condition precedent to all form as mind, is the human sensorium, reverses the whole of Berkeley's Immaterialism.

In one of his *ad captandum* lectures, Mr. Joseph Cook tells us that he once questioned "an expert," asking him "What is the cause of organisms?" receiving for answer that it was "life." Whatever we may think of the inquiry as illustrating the narrowness of imperfectly educated theologians of the Puritanic strain and their passion for first causes, what shall we say of the eminent physiologist who had thus apparently discovered manifestations or indications of life apart from that *materia rerum ex qua et in qua sunt omnia*, as Cicero puts it, who had found the *energeia* separate and distinct from that of which it was the proper function and outcome? Only a *savant* of the old pre-culture school of scientists, as known in England and America until very recently, would have been so ready to furnish Mr. Cook with so prompt a solution to the so-called "problem of life." If matter be eternal, its *vis insita* or universal accompaniment must also be without beginning, without intermission, without end, and between two eternals there can be no priority. Yet Simplicius has preserved a passage from Anaxagoras, which Lewes thus translates: "Intelligence is, of all things, the subtlest and purest, and has entire knowledge of all. Everything which has a soul, whether great or small, is governed by the Intelligence (*νοῦς ἀπ᾽ αὐτοῦ*). Intelligence knows all things (*πάντα ἔγνω νοῦς*), both those that are mixed and those that are separated; and the things which ought to be, and the things which were, and those which now are, and those which will be; all are arranged by Intelligence (*πάντα διεκρίσθη νοῦς*)."<sup>\*</sup> This Anaxagorean Intelligence is not, however, an anthropomorphism. Rather is it that Supreme Intelligence to which modern philosophy—patiently awaiting itself of the modern scientific method of inquiry and research—is directing us, the Infinite τὸ Πᾶν, the Supreme Intelligence, to whose great heart man will continue evermore to approximate, continuing thus evermore to mirror more faithfully in his own nature, in proportion as his knowledge increases, that which we may term God, and continuing age by age to increase the range of his conceptive and formative potentialities. We are not vainly, futilely pressing forward to glut the malevolence of a Sphinx whose

enigma may not be solved. To all things whatever we shall possess the master-key and rationale, and doubtless in all the religious systems of the past, in all their scriptures from the Veda to the Koran, we can trace these aspirations for a nobler, clearer future out of which all progress has come. The horizon is widening with every stage of our development, revealing both to the religious observer and the philosopher a *plenum* of which we ourselves are integral portions, but in which there is no duality of inert matter and immaterial vitalizing principle. Seen in this ever-increasing radiance, is not our sense of brotherhood to one another strengthened and intensified? Are we not really more religious because of this feeling of consanguinity to "every pulse of life that beats the air?" Immanuel—*God with us*—is a term to be applied with deeper, truer meaning than that of the prophet Isaiah, since the oneness or unification of man with all things in the universe, must tend to convert transubstantiation, consubstantiation, and other so-called mysteries of religion into open secrets. With countless millions of millions of millennia before us, perhaps, in the perpetuation of the race to which we belong, it is, at least, impossible to doubt, that by docilely observing Nature and human nature, satisfactory progress will be made, and every generation of men will advance farther and farther toward absolute happiness and perfectibility. Already, in the comparatively brief morning during which man has had a history to be related and transmitted, he has made sensible and encouraging progress from the era when three men were daily sacrificed upon the altar of Heliopolis; and, let what may betide, we may cherish the well-grounded conviction, that ultimately Ormuzd, or the principle of Good will triumph throughout the universe.

#### SUNDAY LAWS.

[COMMUNICATED.]

J. G. Hertwig, of Washington, D. C., is the author of a short pamphlet on *Sunday Laws*. It fully approves Sunday as a day of voluntary rest, for being as such in harmony with the wants of human nature, and with the Constitution of the United States. But it opposes and rejects all legislation establishing Sunday as a day of worship, in churches, and, in other respects, of enforced rest. It argues, that such legislation indirectly violates the full and absolute religious freedom and freedom of conscience, granted and guaranteed to the American people by the Constitution referred to, of 1787, including the Amendments added thereto, afterwards. It claims that social, moral, and mental education will prevent an improper use of a free Sunday in free America. In other words, it advocates full social freedom, on Sunday, in this country.

A short time ago, Mr. Hertwig wrote the fol-

<sup>\*</sup>"Hist. of Phil." Anaxagoras.



lowing note to Dr. Byron Sunderland and Dr. George Elliott, two prominent clergymen of the national capital:

DEAR SIR:—In view of the forthcoming convention of the American Sabbath Union in this city, and believing in the words: *Audiat et altera pars*, I take the liberty of sending you, together with these lines, a copy of a pamphlet on *Sunday Laws*, written by me, *sine ira et studio*, several years ago. It is a legal argument and does not discuss theology.

Hoping that you will not feel offended by my liberty, I am,

Very Respectfully Yours,

WASHINGTON, Dec. 9, 1888.

J. G. HERTWIG.

This note was answered by the following letters which are published here with the permission of all parties concerned:

DEAR SIR:—Though personally a stranger to you, I wish hereby to acknowledge with thanks the reception of your note and pamphlet on the "Sunday Laws."

It is well to hear all sides on a question of such vital consequence, especially when men's views are presented calmly, and dispassionately, and without ribaldry or scurrility.

So I have been interested in your treatise on the Sunday Laws from your standpoint.

But you must know, that your views on the Sunday question differ very materially from those of the prominent men of the Revolution, and the framers of the Constitution, which instrument recognizes "Sunday" in specific terms as the Christian Sabbath, an institution then existing and already established among the people, and which was then and has been to this day held in legal phrase as a *diei non*.

I would remind you of the address of the Congress of 1779 to the people of the United States, of the action of the Provincial Congress of Massachusetts, of 1775, and of that of Georgia of the same year, and of the repeated declarations of such men as Washington, Franklin, Adams, Sherman, and a host of others, I cannot here even enumerate. In fact, almost all the great men who have adorned our history, expressed views of the Christian Sabbath quite the reverse of yours.

Read the order of President Lincoln of November 16, 1862, and you will see what that great man thought of the Christian Sabbath. But I could expand this brief note into a very large volume with similar citations, had I time and space for it. I wish you would go to the Congressional Library and examine a book you will find there, entitled: "Christian Life and Character of the Civil Institutions of the United States," by B. F. Morris. You will discover from its careful perusal how our Christian Sabbath has been regarded by our great and wise men from the beginning.

Very respectfully yours,

BYRON SUNDERLAND.

WASHINGTON, D. C., Dec. 10, 1888.

\* \* \*

DEAR SIR:—Your courteous note and the accompanying pamphlet came to hand this morning (December 10th). Accept my thanks for this addition to the literature of the question.

Allow me to suggest that we do not demand the Sunday Laws on religious grounds, but as a measure of public policy—on the same basis as the laws defining the number of hours of work, etc.

May I also suggest that your view greatly narrows the grander conception of civil liberty. The basis of true freedom is not individualism but the fair application of the law of reciprocity. That large portion of the community, to whom the Christian faith is the very law of life, has *some* rights—rights which would be invaded by the permission of public and private work, which would dis-

qualify the Christian man from conscientiously holding office, and would throw hundreds of thousands of Christian workmen out of employment. A free Sunday would entail more bondage of conscience and more invasion of rights than the most odious blue laws ever enacted. We claim to be the advocates of rational freedom. Being such, we are always glad to hear what any intelligent man has to say against us.

Sincerely Yours,

GEORGE ELLIOTT.

## THE ASSAY OF ABSTRACT IDEAS.

Mr. David Newport's essay, "The Self-Evident," is presented to our readers as an endeavor to dispose of problems which, editorially, have been treated according to another method. We refer especially to the articles "Form and Formal Thought," and the pamphlet "The Idea of God." Our aim has been to free the mind of mysticism as well as of obscurity, which always will beget mysticism. Mr. David Newport speaks of the "infinite power" and "infinite intelligence" as being "self-evident to finite intelligence." We do not doubt that there is some truth in the conception which Mr. Newport calls "infinite power and intelligence." But to us such ideas seem obscure and even contradictory. Infinity and eternity are abstract conceptions invented for special purposes, denoting certain processes that can be carried on without limitation. Space is infinite and time is eternal; every attempt at measuring space or time could be carried on for ever. But how can a power or a cause be infinite? And what the meaning of an infinite intelligence is we cannot say. Infinite power may mean inexhaustible or immeasurable by the means at our disposal. Infinite intelligence may mean an intelligence whose potentialities of progress are unlimited. Whatever is meant, all the conceptions, infinite power, or cause, or intelligence, are extremely complex and far from self-evident.

We highly respect Mr. David Newport for his liberal principles and his firm faith in the possibility of reconciling religion and philosophy. We present his views, but we cannot follow him on his ground. He may be able to make a truce between Religion and Philosophy, but not a peace that will be respected for ever. Science must not give up her claim for the sake of intuitive arguments, which may possess great weight with our emotion, but cannot stand critical investigation.

Our ideas must be analyzed as coins are assayed. We must know the exact value of every one. Our abstract ideas are like bills. They must represent the real value of gold or they are worthless. Let us accept no bill whose authority is mysterious; there is danger in it. An intellectual bankruptcy would necessarily follow. John Law's ingenious scheme of paper credit ruined France more than a century ago. Any method of philosophizing that deals with abstract ideas not representing realities, is philosophical Lawism.

P. G.

## A RHYME OF THOMAS THE DOUBTER.

BY WILLIAM HERBERT.

When the Master had finished the story of the sower and the seed,  
And had shown his disciples the lesson of rock and wayside and weed,

Then up spoke Thomas the Doubter, and his brow was furrowed  
with thought,—  
He had seen a darker problem in the lesson that was taught.

"Master," said Thomas the Doubter, "when the seed sown is the word

I can see the meaning right plainly of the lesson we have heard.

"But, Master, say that the sower were God and the seed were men  
And some of them fell by the wayside, what were the lesson then?



"For I see men daily, my brothers, like the seed of which you spoke,  
And among the thorns fall many, and the thorns spring up and choke.

"And some of them, good master, fall where the soil is scant,  
And they perish there for the absence of the life for which they pant.

"It is easy," said Thomas the Doubter, "for those on good soil  
cast,  
For they have their joy of living and the harvest at the last:

"But those who fall by the wayside, in thorns and on stony ground,  
Are they like the seed-grain scattered by a careless hand around?"

But the Master was silent and mournful, and his brow was furrowed with thought.

And there lay on his soul a burden which Thomas the Doubter had wrought.

### THREE XENIONS.

TRANSLATED FROM GOETHE AND SCHILLER'S *MUSENALMANACH*.

BY \* \* \*

#### DIFFERENT DESTINIES.

Millions of people are busy the race of mankind propagating.  
But in the minds of a few only humanity grows.

#### OUR DUTY.

Always aspire to the whole and can you alone independent  
Not be a whole of yourself, serve as a part of a whole.

#### A FLAW.

Let but an error be hid in the stone of foundation. The builder  
Buildeth with confidence on. Never the error is found.

## CORRESPONDENCE.

### PROFESSOR COPE ON MARRIAGE CONTRACTS.

To the Editor of THE OPEN COURT:—

Prof. Cope has read between the lines of my few remarks anent his proposed marriage system in a manner which does credit to the activity of his imagination. He says: "There is an evident indication in the language of my critic of a misapprehension, common with a limited class of women, that the support of a family is a sort of holiday amusement for a man, while the bearing and care of children is a burden grievous to be born by women." Prof. Huxley says of the original Hebrew of the Bible, that he who is not a Hebrew scholar "can only stand by and admire the marvelous flexibility of a language which admits of such diverse interpretations," and I shall begin to think that my own inornate style is equally diverse if there be anything in my letter to you which warrants the above accusation. I beg to assure Prof. Cope that I am far from thinking lightly of those duties towards wife and children which are so loyally filled by the great majority of men; and if the thought of a woman forced to face the world unassisted is painful to me it is because I know all the disadvantages under which she labors, and how sadly inadequate is the training which she has received to enable her to cope with such disadvantages.

My intention in my letter to you was not to criticize Prof. Cope's article in extenso, as I could not pretend to do so without going more deeply into the subject. Hence what he is pleased to term my "one-sided view." I think that the gentleman can hardly claim to have, himself, viewed the subject largely, as it effects others besides the contracting parties; he does not appear to have seriously considered the effect on offspring nor that which I have pointed out; i. e., that the breaking up of the home would throw the care of the children on the nearest relations of either father or mother. This would certainly be the case if the children fell to the husband's share.

I accuse Prof. Cope of ignoring the rights of all others save the contracting parties; he accuses me of ignoring all cases of possible matrimonial trouble save one and draws my attention to the case of "the good wife who wishes to be rid of a brutal husband." Our divorce-laws protect a woman from a brute, and make him support her. I have also ignored "the good husband who has nursed a viper in his bosom." Any "viper," worthy of the name, would be pretty likely to give her Goodman excellent reasons for divorcing her. Abandoned by him,—as according to Prof. Cope's rule,—being without support, she would, with that subtlety peculiar to the serpent tribe, proceed to capture some other "goodman." This would be but an exchange of calamity. In the third case which I have overlooked, "two people mutually desire separation." "A la bonne heure." Here Prof. Cope and I issue join. Let them separate, by all means. In the fourth case it is supposed that it is the woman who deserts a "good man." A very supposititious case, in which the good man would have my sympathy.

According to Prof. Cope's own showing, women have most to lose in any separation between husband and wife. He alludes to matrimony as "her leading occupation," and further says, "The woman incapable of a reasonable amount of child-bearing is in the position of a man who is incapable of making a living for a family. If we are but child-producers, matrimony our 'leading occupation,' it is obvious that this divorce 'a mensa et thoro' hits us very hard." "Othello's occupation's gone," indeed. To put the sexes on an equality, you would have to deprive the man of his "leading occupation" also.

M. M. E.

### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXIX.—Continued.

The Princes entered the house together, and Ilse received them with a silent curse.

"This is the gentleman," began the Hereditary Prince, "of whom, Mrs. Werner, I have often spoken to you. As a boy he was always called, by those who knew his character, Master Madcap."

"Your Highness should not have acted so," returned Ilse, sorrowfully; "I am a stranger here, and more exposed to misrepresentation than others." She then turned to the Hereditary Prince. "It is the first time that I have seen your Highness since your recovery."

"I am in danger of being again banished from your presence," replied the Hereditary Prince, "and it has been your wish."

Ilse looked at him surprised.

"You have imparted to my father the purport of a conversation that I once had with you," continued the Hereditary Prince, in a tone of vexation. "You have thus caused my father to determine that I shall be removed from here into the country."

"I would not on any account that your Highness should believe me capable of betraying a confidence. If the harmless words I spoke to your father were contrary to your wishes, I can only say, in excuse, that they proceeded from the warmest interest in your Highness."

\* Translation copyrighted.



The Hereditary Prince bowed silently.

"This terzetto is composed of only dissonances," exclaimed Victor. "We are all three vexed at each other,—I most of all, for my disobliging cousin has exposed me to the danger of entirely losing your favor, without having first had the opportunity of winning it. Yet I beg permission at some future time to introduce myself in a better light than amongst the foliage of the tree."

The Princes took leave. When they were clear of the house, Victor said:

"I would like to get a little straight in this matter of the Professor's wife. I perceive now that it is in no case advisable for me to lay my homage openly at her feet. Do not be angry with me, Benno,—I will spoil no man's game; if you can make use of me, I am at your service."

The Hereditary Prince remained standing, and looked so sorrowfully at his cousin that even he became serious.

"If you would do me a service for which I should thank you as long as I live, help me to procure the departure of those that dwell in that house, from this country as quickly as possible. It will bring them no good fortune to remain near us."

"Say it right out: they will believe you sooner than me."

"What reason shall I give?" asked the Hereditary Prince. "There is only one, and I am the last who should venture to express it."

"The lady looks as if she could take care of herself," said Victor, consolingly. "I am more anxious about you. I see you are in danger of being for once of the same mind as your father. Will you not at least venture to raise objections to his sending you away?"

"By what right?" asked the Hereditary Prince; "he is my father, Victor, and my sovereign. I am the first of his subjects, and it becomes me to be the most obedient. So long as he does not command me to do anything which is against my conscience, I am in duty bound to obey him at once. That is the rule of conduct that I have laid down for myself from my own convictions."

"But let us suppose," rejoined Victor, "that a father wishes to remove his son in order to devise mischief against another, in whom his son takes an interest?"

"I still think that the son must go," replied the Hereditary Prince, "however hard it may be for him; for it does not become him to foster suspicions of his father in his soul."

"More son than Prince!" cried Victor; "and there is an end of it, virtuous Benno. Ah, Bergau, where are you going?"

The Marshall, whom he accosted, replied, hastily. "To the Pavillion, my Prince."

"Have you heard any details," asked Victor, mysteriously, "concerning the scare they have had at the castle of my great-uncle? It was about a woman, or rather an apparition, which, in reality, was a spirit that entered as a spectre, with a great row; it began as a thundering noise and ended like a funeral march; it made the doors shake, and the chandeliers jingle like a peal of bells. Have you heard nothing of it?"

"Nothing. What apparition? When—and how?"

"I do not quite know," replied Victor; "but if you hear anything of it, I beg you to let me know."

This the Marshal promised to do, and hastened away.

The Marshal was blameless in his service; he inspected all the accounts conscientiously, took care to have good wine in the cellar, and discharged the ceremonial details of his office well. Besides this, he was a worthy nobleman, but without any great abilities. He was, therefore, a valuable champion of Court; for he contended, with all the energy of a fanatic, for the venerated customs of his household against the irregular pretensions of foreign guests, and was sometimes made use of by the Sovereign as a battering-ram to assault a wall which another would have gone cautiously round. He now came to Ilse, ill-pleased at heart with the commission which he had been commanded to carry out dexterously. He found the Professor's wife in an unfavorable mood. The boldness of Victor, and the secret reproach conveyed in the words of the Hereditary Prince, had made her discontented with herself, and suspicious of the uncertain position in which she was placed. The Marshal long stirred the bowl from which he had to pour; he turned the conversation to Ilse's home and her father, whom he had once met at a cattle-show.

"It is a fine estate, I hear, and has a very high reputation."

Ilse, taking pleasure in this praise of what was dear to her, entered unsuspiciously into the conversation, and told him of the neighboring farms and their owners.

At last the Marshal began:

"Your father is worthy of every distinction; pardon me, therefore, if I put one question: Has your father ever had the wish to be ennobled?"

"No," replied Ilse, staring at the Marshal with astonishment; "why should he have such a wish?"

"I refrain from all observations upon the favorable effect which such an elevation would have upon the career of your brothers and sisters; that is obvious. One can easily conceive that modesty and pride may hinder a man from seeking these advantages. But I



am convinced that his Highness the Sovereign, even for his own interest, would be glad to confer such a favor; for the position of your father, with respect to my gracious master, would thereby become much more satisfactory."

"It is very satisfactory as it is," said Ilse.

"Considering the personal relations into which you have entered with our Court, I may venture to speak openly to you," continued the Marshal, with more confidence. "It would be very desirable for his princely Highness, and for us all, if, on the occasions of his Highness's accidental presence in your country, he could find a house in which he might receive hospitality."

Ilse interrupted him in great astonishment. "I beg of you, Mr. Von Bergau, to explain yourself more clearly, for I do not understand this matter at all. The Sovereign has already honored our house several times with his presence."

The Marshal shrugged his shoulders. "In cases of necessity, the friendly offer of your father has been accepted, but it has always been for a short time, and that incidentally; for even if your father, in his official position, was not at all unfitted for this honor, yet there was no lady who could do the honors of the house."

"I performed the duties of that position as well as I could."

The Marshal bowed. "There was much discussion as to how the breakfast should be arranged without affronting the ladies of the house, and it was very welcome when your father entirely refrained from requiring the participation of his ladies. Allow me also to add, that a rise in your father's position would be desirable for yourself. For your husband, as a learned man of distinguished merit, is in the position of obtaining, on expressing a wish, a rank and position which would establish him as a member of the Court. And if this proposal should be carried into effect, it would give you, under certain limitations, an entrance there also. It would give the Sovereign and Princess an opportunity of receiving you at the castle, and invitations to great Court balls and concerts would be possible."

Ilse rose. "Enough, my Lord, I understand you. I know what my father will do when you offer him that of which you speak; he will laugh and reject the offer, and will say, if our citizen's home is not good enough for our Sovereign to enter, we must resign the honor. But I cannot reject it with the composure which I expect of my father; and I must tell you, my Lord, that if I had had any idea that I, as a lady, was not entitled to enter this society, I would never have set foot here."

Ilse, with difficulty, controlled the indignation which

worked within her. The Marshal was confounded, and endeavoured to pass it off equivocally; but Ilse could not be dealt with; she continued standing, and so compelled him to depart.

The Professor found his wife in a dark room brooding over what had passed. "Will you have a patent of nobility?" she exclaimed, springing up; "it will be prepared for you at once, and for my father also, in order that we may all have the advantages of becoming fit society for the castle without their feeling it a humiliation. It is unsatisfactory to them only to see us occasionally. I know now why I dine alone, and why the Sovereign would not enter our sitting-room at Bielstein. We must have a new name, that we may obtain the education and the manners which will make us worthy of going to Court. And not only us, but perhaps our children. Can you hear this without coloring with shame at our being here? They feed us like strange beasts, which they have procured out of curiosity and will again cast us out of the pen."

"Why, Ilse!" cried Felix, in astonishment, "you are expending more pathos than is necessary. What do the prejudices of these men signify to us? Has not the Sovereign done everything to make our residence here agreeable, according to what we are accustomed? If the people here are obliged by the customs in which they have been brought up, and by the regulations of their circle, to limit their intercourse with us to certain definite forms, what does that signify? Do we wish to become their confidants, and to live with them as we do with our friends at home? They have not deserved such an unfolding of our souls. When we came here we entered into a simple business relation, and we undertook also the obligation of adapting ourselves to their rules of life."

"And we are free to leave here as soon as these rules no longer please us?"

"Just so," answered the Professor; "as soon as we have sufficient grounds for considering them unbearable. I think that is not the case. They require nothing of us that is degrading: they show us the most assiduous attention: what does it signify if we do not take part in their daily intercourse, which we have no right or reason to desire?"

"Do not let us deceive ourselves," exclaimed Ilse. "If in our city any one was to say to you, you may only look at my shoes, but not raise your eyes to my face; you may only go out with me into the open air, but not come into my house; I can eat with you standing, but not sit down at your table, as my dignity forbids me to do so,—what would you, who live so proudly in your circle, reply to such a fool?"

"I would endeavour to learn the reason of his narrow-mindedness,—perhaps pity him—perhaps turn away from him."



"Then do so here," cried Ilse. "For we are invited guests to whom the people of the house close their doors."

"I repeat to you that we are not guests who are invited to associate with the people here. I have been called upon for work, and I have accepted this call, because I look for such great advantage in it to my branch of learning that I would bear far worse things than the disagreeable customs of the Court. I dare not set at stake these important interests by an opposition to social pretensions which do not please me. It is just because I have no particular respect for these rules that they do not disturb me."

"But it grieves and makes one angry that people, in whose life one takes an interest, cling to such miserably antiquated triflings," said Ilse still bitterly.

"So that is it?" asked Felix. "We are anxious about the souls of the *grandees*? There is something to be said on that point. There is an old curse on every privilege which falls to the lot of most who share in it. This may be the case with court privileges. The life of our princes lies confined within the boundaries of a small circle; the views and prejudices of those around them, whom they are not free to choose, hedge them in from the first day of their life until the last. That they are not stronger and freer arises for the most part from the confined atmosphere in which they are kept by etiquette. It is a misfortune, not only for themselves, but for us, that our princes look upon the society that is not noble with the eyes of a deputy chamberlain or a courtier. This evil one feels painfully when one comes into contact with them. I think, undoubtedly, that the struggle which is going on in different parts of our fatherland will not come to a good conclusion, until the dangers are removed which arise from the effect of the old Court regulations on the training of our princes. But it appears to me they are already broken through in many places, and the time may come when all this nonsense will be the subject of good-humored satire. For this etiquette of Court is, after all, only the remains of a past age, like the constitutions of our guilds, and other ancient customs. So far you are right. But those who indulge in personal irritation, as you do now, expose themselves to the suspicion that they are only angry because they themselves desire entrance into the prohibited circles."

Ilse looked silently down.

"When you and I," continued the Professor, "come accidentally into personal contact with such modes of thinking, there is only one thing that befits us—cool contempt and indifference. We wish, for the sake of our princes, to remove the impediments which limit their intercourse with their people;

but we have no wish or impulse to put ourselves in the place of those who apparently direct the rulers of our country. For, between ourselves, we, who pass our lives in strenuous mental labor, would in general be bad companions for princes. We are deficient in the graceful forms and tact, and the easy complaisance of society. The stronger minds would hurt, by their independence, and the weaker would become contemptible by abject subservience. Freedom of choice is all that we wish for our rulers. One feeling we may preserve without arrogance—all who separate themselves from our circle lose more than we do."

Ilse approached him, and laid her hand in his.

"Therefore, Lady Ilse," continued her husband, cheerfully, "be contented for these few weeks. If it should happen to you in reality to be an invited guest of the Court, then you may enter into negotiations concerning your pretensions; and if in such a case you have to take exceptions, do it with a smile."

"Do you speak so from the calm confidence of your soul," asked Ilse, looking searchingly at her husband, "or because you have it much at heart to remain here?"

"I have my manuscript much at heart," replied the Professor; "for the rest, the loss of peace is a greater deprivation to me than to you. You have from your youth, and especially this last year, taken a warm interest in the inmates of this princely castle. You have at times felt yourself much interested in them, and it is on that account that you are more wounded than needful."

Ilse nodded her head assentingly.

"Bear with it, Ilse," continued her husband, encouragingly; "remember that you are free, and may any day leave it. But it would be more agreeable to me if you did not leave me alone."

"Would that be more agreeable to you?" asked Ilse, softly.

"You little fool!" exclaimed the Professor. "To-day we will give up the theatre, and have our evening reading. I have brought with me what will drive away all vexations."

He brought the lamp to the table, opened a little book, and began:

"It happened, one Whitsuntide, that Nobel, the King of all the Beasts, held a Court," and so on.

Ilse sat with her work in her hand by her husband; the light of the lamp fell on his countenance, which she examined searchingly, in order to read therein whether he still felt towards her as before; till at last the iniquities of the fox brought a smile to her lips, and she took the book from him, and read on quietly and comfortably, as at home.

(To be continued.)



## BOOK REVIEWS.

INFIDEL DEATH-BEDS. By G. W. Foote. London: 1888. Progressive Publishing Co., 28 Stonecutter Street, E. C.

The second edition of this pamphlet contains a description of the last hours of Paul Bert, Charles Darwin, Garibaldi, Auguste Comte, Courtlandt Palmer, and others, in addition to the list of prominent men included in the first edition.

MARCHING THROUGH GEORGIA. Henry C. Work. Boston: Ticknor & Co.

This is one of a group of books done in dainty binding, on enameled paper adorned with numerous illustrations, reprinting some of our national songs, and intended for holiday and similar uses. "Marching Through Georgia" was both written and composed by Mr. Work. It is not among the best, either in words or music, of our patriotic songs, but will always be remembered for its association with perhaps the most brilliantly-successful feat in our late civil war.

C. P. W.

FELIX MENDELSSOHN'S LETTERS. Edited by Felix Moscheles. Boston: Ticknor & Co.

We have here a large and handsome edition, rendered more attractive by thirty illustrations, of the letters of Mendelssohn to Ignaz and Charlotte Moscheles, edited by their son, presumably named for their friend, the composer, Felix Moscheles. The editor explains in his preface that these letters, carefully arranged and indexed by his father, came into his possession in 1870, and that he has abstained this length of time from publishing because he believed such delay would have met the wishes of both writers. The letters deal very freely with the works and reputation of contemporary artists, not in the spirit of a narrow and ungracious criticism, but with the liberty such a form of written intercourse allows. The preface includes some personal recollections of the genial composer, and the book is one that contains much instruction for musicians and lovers of genius.

C. P. W.

WHY I AM AN AGNOSTIC. By Saladin and Joseph Taylor. London: W. Stewart & Co., 41 Farringdon Street, E. C.

The author's standpoint may be summed up in the following quotation: "We may frankly acknowledge that the real essence and origin of things are 'behind the veil,' and not knowable, or even conceivable, by any faculties by which the human mind is endowed in its present state of existence. This is Agnosticism." Mr. Taylor explains, as we think, to almost anybody's satisfaction, why he is not an orthodox Christian, or Jew, or Mohammedan. He explains misconceptions and also refutes the common error that the belief in the unknowability of the absolute is equivalent to absolute science. But he has not even attempted to establish the existence of his absolute existence which lies outside of the province of science. It would greatly interest us should Mr. Taylor in an eventual edition explain this basic idea of agnosticism, the existence of the Unknowable, which he takes for granted. Our position has been stated in the editorial of No. 23, "The Unknowable," and in Nos. 43 and 44 of THE OPEN COURT, "Agnosticism and Religion."

THE STORY OF CREATION. A Plain Account of Evolution. By Edward Clodd. London: 1888. Longmans, Green & Co. A. C. McClurg & Co., Chicago.

An excellent book, popular, and yet written with scientific thoroughness. Mr. Clodd's method of quoting in foot-notes the chief authorities consulted, is most recommendable and should become a universal custom. The book discusses the sun and its planets (Chap. III), the past life-history of the earth (Chap. IV), present life-forms (Chap. V), inorganic and organic evolution (Chaps. VI, VIII), the origin of species (Chap. IX, X), and social evolution. There are only two objections which we have to make.

The introductory chapter lacks in clearness and accuracy. It discusses "the contents of the universe" which is made up of matter and power." There are "two indestructible powers of opposite nature to each other; (a) Force, and (b) Energy. And Energy again may be "potential or kinetic." Under the head of force we find "gravitation," and an example under the head of potential energy is a "stone on a roof," one under kinetic energy, a "stone falling." Are not both instances of gravitation? The other objection from our standpoint is the dogmatic acceptance of Agnosticism, which the author considers "impregnable" in opposition to "the unverifiable assumption of dogmatic theology." There is no contradiction between the two. If really it were hopelessly impossible to know whether a consciousness independent of our body like a shadowy ghost exists or not, why should we not at the same time follow dogmatic theology and believe in it? From a positive standpoint both views, that of agnosticism as well as that of dogmatic theology, are untenable.

Many explanatory illustrations add much to the interest of this valuable book.

## NOTES.

M. Alfred Binet will contribute to THE OPEN COURT of next week an article upon "Experimental Psychology in France."

Prof. Albert H. Gunlogsen in *America* of Jan. 3 remarks upon Mme. Blavatsky's work, "Isis Unveiled." European Sanskrit scholarship finds a competent defender in Prof. Gunlogsen against the attitude of the disciples of theosophy.

We shall publish soon an essay by Dr. M. Wilhelm Meyer, the well-known German astronomer. Dr. Meyer is the editor of the astronomical journal *Himmel und Erde*, which has recently been founded in Berlin.

Dr. Andrew D. White will resume his work for the *Popular Science Monthly*, "New Chapters in the Warfare of Science," in the February number. Dr. White is now in Europe making an exhaustive examination of the libraries there for additional material. The chapter immediately forthcoming will treat of "Demoniac Possession and Insanity."

In the *Ethical Record* for January Prof. Felix Adler discusses "The Influence of Manual Training on Character." "There are influences in manual training," says Prof. Adler, "which are favorable to a virtuous disposition. Squareness in things is not without relation to squareness in action and thinking. A child that has learned to be exact—that is, truthful in his work—will be inclined to be scrupulous and truthful in his speech, in his thought, and in his acts."

The second volume of the French translation of Schopenhauer's main work,—appearing in the *Bibliothèque de Philosophie Contemporaine*, Felix Alcan, Paris,—is in our hands. The work of M. A. Burdeau, the translator, is much superior in point of accuracy to that of any English version of Schopenhauer known to us, while the style is charmingly facile and lucid. The various appendices subsequently added by Schopenhauer to his work, including the *critique* of Kant's philosophy and many essays in criticism constitute the subject-matter of this volume. We recommend it to our readers.

Bishop Potter of New York, in an essay which will appear in the February *Scribner's* on "Competition in Modern Life," discusses the moral aspect of competition. "A strife to excel, nay, if you choose, downright rivalry," the Bishop says, "has a just and rightful place in the plan of any human life." A prize fight is probably the most disgusting spectacle on earth, but it has in it just one moment which very nearly approaches the sublime; and that is when the combatants shake hands with each other and exchange that salutation as old as the classic arena, "may the best man win." It is the equitable thing that the best man should win."



## PAMPHLETS ON LIVING QUESTIONS.

Truths for the Times. By Francis Ellingwood Abbot. "The great inspiration of the Nineteenth Century is faith in the ideal entities as possible in fact." Price, 10 cents.

Fear of the Living God. By O. B. Frothingham. Price, 5 cents.  
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Messianic Expectations. By Rabbi Solomon Schindler. I. Introductory 3 cents; II. Two Thousand Years Ago, 5 cents; III. The Carpenter's Son, 5 cents; IV. Judaism the Mother and Christianity the Daughter, 5 cents. V. A Genuine Messiah, 5 cents. The five lectures for 20 cents.

The Proposed Christian Amendment to the Constitution of the United States. Price, 5 cents.

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No. 74. Vol. II.—48.

CHICAGO, JANUARY 24, 1889.

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FORMER CONTRIBUTIONS TO "THE OPEN COURT."

GEN. M. M. TRUMBULL.

In No. 25 *Gen. Trumbull* has an article on "The Value of Doubt in the Study of History." He shows the tendency of historic writing toward exaggeration and falsehood; and he advises teachers to strengthen the minds of pupils by the exercise of doubt. Much of the history of the late war as written by our famous generals is as fabulous as the legend of *Romulus* and *Remus*. It is written by men interested in their own story, and therefore it comes under the suspicion cast upon it by the ordinary rules of evidence. "This war history," says *Gen. Trumbull*, "is woven out of camp-fire yarns." "Like the feet of Chinese children," he says, "our minds were crippled in infancy, and many of them have been lame ever since. They are not as useful to us as they would have been if strengthened in infancy by the exercise of doubt."

WILLIAM I. POTTER.

In the leading essay of No. 1, Mr. Potter discusses the question of the relation of individual existence to the aggregating power and well being of society. Nature in this matter should be our teacher, and the spinal world-plan of nature is the method of differentiation. It is a process of concentrating the forces of existence which is done through the process of self-preservation. This principle of selfishism is means only, not an end. Without it there would be stagnation, but the individual organism does not exist for its own sake. Nature's aim is higher, broader, richer life. The end of individual existence is the common good, the general well-being, and here is where the law of ethics and the obligations of religion bear upon social problems. Individual self-interest and enterprise only furnish the rough materials for the meliorations which mark the progress of the higher civilization.

ERNST MACH.

Ernst Mach (Professor of Mechanics at the University of Prague, author of several works explanatory of the history and philosophy of mechanics, and the first authority in his branch) explains in his essay *Transformation and Adaptation in Scientific Thought*, (in Nos. 46 and 48), one of the most characteristic ideas of modern science—an idea that lies, so to speak, in the atmosphere. "Knowledge," he says, "is an expression of organic nature." The law of evolution, which is that of transformation and adaptation, applies to thoughts just as well as to individuals or any living organisms. A conflict between our customary train of thought and new events produces what is called the problem. By a subsequent adaptation of our thought to the enlarged field of observation the problem disappears and through this extension of our sphere of experience the growth of thought is possible. Thus the happiest ideas do not fall from heaven, they spring rather from notions already existing. From this standpoint the narrow conception of egotistic views disappears. "The person" is comparable to an indifferent and symbolical thread on which are strung the real pearls of life—the ideas that make up the changing content of consciousness. Humanity in its entirety is like a polyp plant; the material and organic bonds of union have been severed, but by this freedom of movement, the psychical connection of the whole has been attained in a much higher degree.

MONCURE D. CONWAY, on Agnosticism, in No. 47.

Mr. Moncre D. Conway, in reference to the philosophical exposure of Agnosticism in the editorial article of Nos. 43 and 44 of *THE OPEN COURT*, declares that the Unknowable cannot in the least concern the religious nature. Only weariness of wing can have brought free thinkers to seek rest on this raft. Religion does not follow abstract and vague gods, it follows Jesus, Buddha, Mary, who may be known and loved. On the truth and moral value of these great figures, man can base his life. Mr. Conway concludes with the remark that the ethical side of monism has not as yet been made clear. Nature seems predatory and cruelly impartial between good and evil. Adherents of error survive more comfortably and increase more extensively than the disciples of truth. May it not be more truly said that there is a moral law in man to which nature must conform in order to be elevated and transfigured to a nobler existence? Mr. Conway's critical remark if it were unanswerable from the standpoint of Monism would drive religion and philosophy back into the dualism and supernaturalism of former times. And truly the supernatural, if it is justifiable at all, must be recognized in the moral nature of man, unless man is proven to be a part of nature. The editor's answer to Mr. Conway's criticism, in the same number, expatiates on the Oneness of Man and Nature, thus showing that humanity, culture and civilization are but a higher stage of the natural, and that morality does not stand in contradiction to, but is an outgrowth of and a conforming to the cosmical order of the All.



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A WEEKLY JOURNAL

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No. 74. (Vol. II.—48.)

CHICAGO, JANUARY 24, 1889.

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## EXPERIMENTAL PSYCHOLOGY IN FRANCE.

BY ALFRED BINET.

It is known that of late years, in France, a great scientific movement has come about in favor of experimental psychology. While the professors of our High Schools and Universities are continuing to teach an antiquated science, whose only method is that of introspection, there has arisen on all sides in the philosophical reviews, and even in journals strictly medical, a body of work in which the investigation of mental phenomena is conducted according to the methods of natural science. Incontestably, the forerunner of this activity in psychological inquiry was M. Taine, who published in 1869 an important treatise upon "The Understanding." With remarkable penetration M. Taine foresaw, to a certain extent, the most important results attained in recent years. Thus, the entire chapter upon "Images" may still be consulted with profit.

The real inaugurator of the psychological movement proper, is M. Ribot. The psychologists of France owe much to M. Ribot. Without him, without the Review\* which he founded, without the work and results of foreign† investigation which he has made known in France, many scientists would never have thought of devoting their attention to psychological research. Further, by instituting a chair at the Sorbonne and subsequently, at a quite recent date, at the Collège de France, M. Ribot has helped to give an official consecration, in our country, to the study of experimental psychology. Finally, some few years past, in conjunction with M. Charcot, M. Ribot founded a Society for Physiological Psychology which now counts more than fifty active members. In drawing together men of different professions, in bringing the psychologist into communication with the physiologist, the physician, the alienist, the mathematician, and the linguist, that society has fathered a great number of important productions and substantially contributed to the development of the science of psychology.

The personal work of M. Ribot is contained in four valuable monographs upon the diseases of memory, of will, of personality, and upon the psychology of attention. We are informed, moreover, that the author

has been at work for some time past, upon the phenomena of emotion, and that he will perhaps publish, some day, a monograph upon that attractive theme.

It would be difficult to characterize the work of M. Ribot in few words. We may say, however, that he has constantly endeavored to stand upon the ground-work of facts, entertaining a horror of metaphysics that is perhaps exaggerated. Not a metaphysician, he is neither materialist, nor spiritualist, nor monist—nor anything of the kind. He has little love for great systems, and rightly gives precedence to little facts, accurately observed and minutely described. I believe, with him, that the future of psychology lies not in great theories, but in little facts. Respecting the relations of the physical and the spiritual, he regards the matter as a simple concordance, without further fathoming the problem; he has frequently compared the state of consciousness to a state superadded, which in no shape modifies physiological processes, and which acts like a shadow opposite a body. He affirms, in different places, that an unconscious phenomenon is nothing else than a purely physiological phenomenon. It will be thought, perhaps, that despite the repugnance of M. Ribot to metaphysics, a certain metaphysical character attaches to the ideas just noticed. I believe, in fact, that we know *absolutely nothing* regarding the nature of unconscious phenomena. I shall, perhaps, return to this subject at a future day, and briefly present the experiments of M. Pierre Janet, and my own (not yet published), upon the signification of unconscious phenomena.

The method employed by M. Ribot in his admirable monographs, consists in elucidating the mechanism of the normal state by recourse to mental pathology. M. Ribot is neither a physician, nor an observer; the pathological data which he makes use of, are always second-hand; but with an unusually extensive range of knowledge he unites great discernment in the selection and interpretation of facts. And, besides, he presents his psychological conclusions in language so clear and precise, as to form a happy contrast to the terminology of the classic philosophers.

In his studies in pathological psychology, the point to which he has given especial prominence, is the law of mental dissolution. That law can be regarded as

\* The *Revue Philosophique*.

† The experimental psychology of England—The experimental psychology of Germany.



the key-stone of the structure he has reared. He has very correctly observed, and better than had been done before him, that there are stable states—strongly organized, resistive; and weak states—unstable, artificial, and easily lost. For instance, in memory, the stable states are the simple and common movements of adaptation; the more complex are the delicate movements of professional activity, the special memories; in the will, the stable and resistive are the simple impulses, having their origin in an organic state, as hunger, thirst; the less stable are the complex determinations of volition, in combination with mobile moral elements, such as duty, or remote interest; in the attention, the stable is spontaneous attention, kept alert by an active sensation; the weak is voluntary attention and reflection. Now M. Ribot has shown, that in progressive mental dissolutions, the progression invariably follows the same order; it proceeds from the more stable to the less stable; from the better organized to the less perfectly organized; from the higher to the lower. In substance, this is a great law of general pathology, of which M. Ribot has made a happy application to psychology.

By the side of M. Ribot we shall place M. Charcot, the eminent professor of the Salpêtrière, who by his studies of nervous diseases has taken, of late, a prominent position in psychological science. It is M. Charcot who took the initiative in founding the Society for Physiological Psychology; he is president for life of that society. M. Charcot has written no special treatise upon psychology; moreover, he writes but very little. Aside from a few productions in conjunction with his pupils, the only works which we have from him are the reports of his lectures at the Salpêtrière. In these lectures the psychological method is frequently introduced, whenever the theme demands an explication of the complicated mesh of psychical phenomena. We shall cite, by way of instance, the lectures upon hystero-traumatic paralyses, wherein the eminent professor has firmly established the influence of the *idea* upon motory disturbances; and further mention must be made of the admirable lectures upon aphasy, wherein the psychology of language has been so happily resorted to in explanation of the diseases of that important cerebral function.

A former pupil of M. Charcot, M. Charles Richet, at present professor of physiology in the Faculty of Medicine at Paris, has contributed to the advancement of experimental psychology in France by a considerable number of original works. After 1870, M. Richet was the first investigator to re-inaugurate the study of hypnotism; he was, likewise, the first to see in these studies a field of psychological research, "a method of intellectual and moral vivisection." Among the phenomena of suggestion there are several

that belong to him especially; thus, he was the first to show that the personality of a subject put to sleep may be transformed, and every remembrance of the true personality effaced, by suggestion, from his memory, and a fictitious personality substituted. He has also propounded quite ingenious ideas upon the phenomena of unconsciousness; he has brought out the fact, that in hysterical persons and in a great many individuals reputed normal, there exists a sort of a permanent semi-somnambulism; in other words, there is, in these subjects, an unconscious ego, an unconscious activity, which is constantly on the watch, which contemplates, which gives attention, which reflects, which forms inferences, and lastly which performs acts—all unknown to the conscious ego. Finally, M. Richet has published, during recent years, in the *Revue Philosophique*, of which he is an assiduous associate contributor, a long essay upon "Mental Suggestion," which has attracted considerable notice. His researches tend to the conclusion, which the author regards as probable, that thought is transmitted from one brain to another without the intervention of signs appreciable to our senses. The proof, the author himself confesses, is not complete. M. Richet arrives at a probability merely. The numerous treatises that have been published in France upon this subject, are to be attributed to the impulse given by the article of M. Richet.

Another pupil of M. Charcot, M. Féré, now physician at the Bicêtre, has distinguished himself in recent years by his many researches in experimental psychology, the subjects of which have been principally phenomena of hysteria. In conjunction with me, M. Féré has first entered upon a course of investigations in hypnotism and kindred subjects. Our work together, which still continues, has produced as its main result a book upon "Animal Magnetism," which is treated particularly as a branch of psychology. In this line of ideas, M. Féré has made an especial study of hallucinations, and of systematic anæsthesia and paralysis. The investigations referred to have occasioned a great deal of controversy in the circles known as the School of Nancy. The physicians of Nancy have called in question certain conclusions reached by the School of Salpêtrière; but it must be remarked, that as regards the facts of suggestion all discussions that have arisen have related only to verbal differences.

M. Féré has lately pursued, in ingenious experiments upon hysterical and hyper-excitible subjects, investigations upon the psychology of movements. He has shown that the quantity of movement produced depends upon the nature of the sensations. Every sensory excitation, for instance the sight of a red square, at first induces an augmentation of force—a



dynamogeny—measurable on the dynamometer; then, according as the excitation is prolonged, the force diminishes, and dynamogeny gives way to enfeeblement. Such, in rude outlines, are the experiments in psychomechanics by which M. Féré has established a quantitative relation between sensations and movements.

We are obliged to be brief in the present sketch of French psychologists. In conclusion, therefore, we shall simply note the names of M. Espinas, who has published valuable studies upon animal communities; Bernard Perez, who has given to the world several attractive volumes upon the psychology of infants; Pierre Janet, to whom we owe the highly ingenious investigations into unconscious manifestations of mind; Egger, known through his highly interesting study of internal audition, auto-observation; Beaunis, who has written upon arrested actions, upon hypnotism, upon the muscular sense, etc.

\* \* \*

Accordingly, as may be gathered from the preceding sketch, there is not, in France, a *school* of psychology; there are no masters and disciples; there is not a body of accepted doctrines. We all work upon our own individual score, without being subject to any common word of command; we are dispersed, like skirmishers, upon the field of research. In his inaugural lecture at the Collège de France, M. Ribot correctly stated that the characteristic mark of French psychological research was the production of monographs. We possess, in fact, a certain number of experimental studies upon special subjects. We have no universal work, discussing, even in brief, the entire province of psychology. M. Ribot, in adverting to this want, said that two years would be requisite to prepare a treatise upon French psychology, and that, probably, by reason of the rapid advances being made in our knowledge of this subject, when the treatise were finished, it would no longer be available for current use.

This being the character of French psychology, it would be very difficult to state the opinions upon which any great number of the thinkers of our country have united. How know, for instance, the views of M. Charcot upon Personality, when he has not as yet had occasion to express himself upon that point? All that we can do is to endeavor to bring into relief the main tendencies of French psychological inquiry and to indicate the methods preferentially employed.

With relatively few exceptions, the psychologists of my country have left the investigations of psychophysics to the Germans, and the study of comparative psychology to the English. They have devoted themselves almost exclusively to the study of pathological psychology, that is to say psychology affected by disease. Such, if I do not mistake it, is the foremost feature of our work in psychology. One need only

glance at the titles of the principal original treatises of M. Ribot to note that they treat of pathological conditions: Diseases of Memory, of Will, of Personality, etc. All the other authors have followed his example: they have sought in the pathology of the mind or in the pathology of nervous action, the data to render intelligible the mechanism of the normal state. The marked favor that studies in hypnotism have met with in France, is a further proof of the preponderance acquired by pathological psychology. The results attained by the systematic employment of the pathological and clinical methods, have been extensive; but at the present time they yet remain scattered in a mass of reports accessible only to specialists. Consequently, these results are almost unknown to the psychologists of foreign countries. Thus is explained a circumstance that does not fail to excite surprise. Although it is well established that pathology has furnished psychology with the most recent and the most numerous results, the works upon psychology appearing in Germany, in Italy, in England, and in America, and which pretend to give a complete picture of the present state of psychological research, say almost nothing of the investigations of mental and nervous pathology. The scientific work, really French, is not recognized, and in effect, suppressed.

PARIS, December 22, 1888.

#### SYMPTOMS OF SOCIAL DEGENERACY.

BY MONCURE D. CONWAY.

The word "civilization" is very vaguely used. There is really no such thing as a universal or cosmopolitan civilization. There are civilizations and civilizations. There was an old Brahman civilization, a Persian, an Egyptian, a Greek, a Roman civilization; but the best man in either would be likely to find himself regarded as a barbarian in any of the others. In the present day we witness a civilization in England which easily recognizes the barbarity of duelling in Germany or France, but is blissfully unconscious of the savagery which others see in its brutal massacres of men in the Soudan.

We Americans can easily discover survivals of barbaric institutions in the governments and courts of Europe, but are unconscious of the extent to which certain regions of our own country linger on the lowest rungs of barbarism. It would appear that every nation must develop a civilization of its own, if it is to have any. A civilization cannot be imported. A hundred years ago, our constitutional fathers framed a political scheme which they fondly believed a mere modification of, and improvement on, the English constitution. But experience has proved that there is very little resemblance between the two governments or constitutions. We imported the religions of Eu-



rope, too, or meant to do so, but they are all steadily Americanized. All this may mean that we are forming a valuable American civilization; but meanwhile we have to deal with a mass of passions and instincts formed under distant civilizations, and without the organized restraints with which those civilizations could master the dangerous forces developed under them. Our American civilization is, as it were, building a great continental railway which, at certain points, must needs pass through deserts, where recurring cyclones now and then bury the track for miles, and diminish the advantages of the other parts. The gangrene of corruption in political and municipal administration; the prostitution of the ballot in basest venality; the unblushing theft of foreign literary property: these are signs of the decay of an ethical system along with the theology which took it under fatal protection; and of a perilous interregnum during the minority of the scientific moral order.

There are certain symptoms of our social condition in America which suggest an infancy liable to certain troubles, but likely to outgrow them. Such is the ardor of large numbers of amiable people to fasten on others their private notions of personal conduct which does not concern them otherwise than sentimentally. The fanatic who aims to punish his neighbor for drinking a glass of wine, or for selling it, is really proceeding on the principle of the Inquisition. A man has as much right to punish his neighbor for his belief as for any conduct which does not specifically injure another. He may claim that liquor does injure others; but so said the inquisitor concerning heresy. There is a man now serving out a sentence of over twenty years, in Kansas, for selling spirits. It is conceivable that when the Mormons are exterminated their throne may be occupied by a salvationist theocracy which will punish every man who doesn't go to church. It would not be more uncivilized than some of the puritanical pretensions which animate certain large, and even political, organizations. These, however, are crudities of infancy; they are the measles and mumps of a nascent civilization. There are more malignant diseases of infancy. One may compare to scarlatina, for instance, the Kentucky and Virginia vendettas,—recrudescence of ancient Corsica. It is fundamentally the child's tit-for-tat expressed with shotguns.

But there is another American social disease which marks decay of the very tissues of civilization. As the fast fossilizing remnants of early Spanish settlements in the New World are haunted by a special and fatal disease called "Yellow Jack," so certain regions cursed by the old regime of Slavery are beset by a special anti-social malady euphemistically personified as 'Judge Lynch.' The lynching microbe is more difficult than that of Yellow Fever to master, because the moral suf-

ferers seem as proud of their loathsome condition as some remote peasantries are said to be of their wens. Nor does there appear to be in this country any standard of civilization by which 'Judge Lynch' can measure his own monstrosity. I have before me the *New York Herald* (Dec. 11, 1888) with an editorial in which the sheriff of Birmingham, Ala., is applauded for having defended his prisoner from a mob of lynchers, at cost of several lives. Then the editor expresses his belief that "lynch law" is sometimes justifiable. "If corrupt courts systematically side with rogues and leave honest people without protection; if thieves and murderers, by the connivance of the courts and the law officers, habitually defy justice and prey upon the community—in such a case, of which there have been several in the far West, notably one in the early settlement of Montana, the people have, we believe, a clear right to take justice into their own hands."

The editor of the *N. Y. Herald* is a graduate of Harvard Divinity School, and was sometime minister in the pulpit now filled by Robert Collyer. If such instructions as those just quoted issue from the religious institutions of Boston and New York, what can be expected of backwoods mobs-men? The seed of the fallacy is in the phrase "lynch law,"—euphemism for lawlessness. The writer confuses these blood-thirsty ruffians with the Vigilance Committee which anticipates the establishment of law-courts in new communities. But the Vigilance Committee is a law-court; it hears testimony, weighs evidence, and sometimes acquits. "Judge Lynch" starts out not on an expedition of justice but of murder. He needs no justification more complete than the *Herald's* declaration that he has a right to defy the courts of law, judge, and jury, provided, that they do not decide as he (Lynch) may wish. That, of course, is the only meaning of a mob's right "to take justice into their own hands," which our reverend editor finds so "clear." For in a difference of opinion between Lynch and the lawful jury, as to whether a man is innocent or guilty, there is clearly none to decide save what brute force Lynch may gather on his side.

There are two salient features of "Judge Lynch,"—his barbarism and his cowardice. His barbarism consists in ignorance of the dependence of civilization on recognition of a man's innocence until he is proved guilty; and on all such proof being under all the safeguards of innocence which society has established. The legal tribunal has been constituted for the very exact purpose of securing that dispassionate deliberation of which the lynchers are incapable. The prisoner, until his guilt be so proven, is still a citizen,—his durance, if proven unjust, entitling him to redress. Consequently a citizen under arrest is especially under the protection of the community; his helplessness



is an appeal to the impartiality and consideration of every man who knows the value of his own freedom and security. Until he be proved guilty, every honorable citizen will consider that prisoner as, in a sense, rendered sacred by his trouble and helplessness; and realize that he himself, or those dearest to him, may at some time be falsely accused. Hence the cowardice of "Judge Lynch." He brings the armed many to attack the one unarmed. How brave! How honorable! The hundred lynchers of one unarmed and presumably innocent man are not only, in the law's eye, a hundred murderers, but meaner and more cowardly murderers than their victim can be; for if guilty, he did take some risk—otherwise he would not be a prisoner. Were it understood by such curs that they are likely to meet the resolute resistance of such brave sheriffs as Smith of Birmingham, Ala., there would be little of this savage sport of running down defenseless men like foxes.

Mark Twain in his "Huckleberry Finn"—one of the most powerful American stories—has drawn a truthful picture of a mob cowed by one man confronting them—jeering them—with gun in hand ready for the first that dare approach. It is certain that if it were imposed on a mob of lynchers that they should draw lots for one of their number to meet the prisoner in single combat, pistol to pistol, the whole gang would sneak away. Yet of this meanness they are unconscious; they regard themselves as gallant gentlemen. And no doubt those dastardly "White Caps," in flogging men and women, consider themselves protectors of society instead of what they are—the very rottenness of a decaying society.

If these evil signs of our time, in this western world, be scrutinized, they will be found indications of the lapse and decay of a social order built on beliefs now discredited. The old dogmas legitimated autocracy, priestly despotism, espionage; human laws, interests, liberties, were of too little importance to be studied by men exploring a supernatural universe. The inquisitor, being without place in the republican constitution, must form a petty despotism for himself. He must gather with foul birds of a like feather. That such *are* foul,—grotesque and vulgar successors of great oppressors,—inspires a hope that they will not be able to arrest the evolution of an American civilization. But we may rest assured that if such disintegrating anti-social forces are ever checked, it must be by the development of a moral order very different from that of mediævalism, which is daily decaying around us, and setting free such malarious plagues.

#### SENSATION AND MEMORY.

The primal condition of knowledge is sensation. All knowledge has its root in sensation, and without sensation there could be no knowledge.

Sensation is a process which, under certain circumstances, takes place in living matter when influenced by its surroundings. Take for instance a moner which you may keep on a watch crystal in a drop of water. Expose the moner to light and the light will excite its activity; touch it with a pin, dipped before in acetic acid, it will flee from the offensive object. Throw something in its way on which it can feed and it will seize it. It will be affected differently by different things, but similarly under similar conditions, and will react accordingly.

Sensation is a psychical phenomenon. When a moner is affected by and responds to irritations, it behaves in such a way as to leave no doubt that there is on a small scale and in a very simple condition the self-same power at work which we feel active in our consciousness. Like ourselves, the moner is a sentient being, a creature that is endowed with feeling. 'Psychical,' accordingly, we call all phenomena of sensation from the simplest feeling of pleasure or pain, or indifferent perceptive impressions to the most complex states of conscious thought and purposive will.

Mr. G. J. Romanes considers as the characteristic feature of psychic acts the faculty of choice.\* This may be true. In making a special selection, in giving preference to one kind of food or another, a micro-organism will best show its psychical qualities; but the essential feature of psychic life, it appears, is sensation or the property of feeling which we must suppose to accompany certain movements of a creature and which is most plainly recognized in the way a creature makes a choice. A sieve certainly discriminates also between the coarser and finer particles which are thrown on its wires, but no one will call the selection made in this way a psychical act on the part of the sieve.

It may be objected, that a sieve is a dead body not moving about nor showing self-motion, and the selection made by it is mere mechanical work. The sieve as such does not possess the life of an organism, but its particles, the wood and the wires, will, under certain conditions, exhibit the same self-motion of which all matter is possessed. The molecules of wood, for instance, will embrace the oxygen of a flame as fervidly as a lover rushes into the arms of his mistress. Self-motion is no special and exclusively characteristic feature of psychic life, it is a universal property of matter. On the other hand we should bear in mind that the motions of life-structures are not exempt from the laws of mechanics. Living bodies are mechanisms just as much as machines, the only difference is that they are living machines. In a machine the motion is transmitted from the fire-place and boiler to other parts of the machine. In an organism the smallest particle has a

\* See Alfred Binet, "The Psychic Life of Micro-Organisms," p. 109. Open Court Publishing Co., Chicago, Ill.

M. Binet's work will be published within the present month.



fire-place and boiler of its own from which it derives motor power. All animals and plants are such living machines. The main difference between plants and animals is that the latter develop the phenomena of psychical life which, save in the rudimentary form of mere potentialities, can not be found in the former nor in any other province of nature.

Of the existence of feeling, we have the most intimate and immediate knowledge, for we ourselves are feeling. Feeling is a fact; it is the most indubitable fact of all; and all knowledge rests on it. Psychology accepts this fact as the basic datum of its investigations and must attempt to reduce all more complicated phenomena of psychic life to simple feelings.

Every single feeling appears to us most simple, but this does not exclude that, in fact, it is a very complicated phenomenon.

The question as to the origin of feeling is an unsolved problem still, and we cannot so soon hope for a satisfactory solution. This much, however, can be safely stated, that we must expect the solution of this problem from biological investigations. Feeling does not come into the protoplasma of organisms from transcendent spheres. The conditions of feeling must exist in the inorganic matter of our world, and the appearance of the phenomena of sensation, will be found to depend upon a special form in which the molecules of protoplasma combine and disintegrate.

If the same irritation, in a moner, is repeated, the animalcule will show a greater ability to respond to the occasion. In other words, the moner possesses memory. A previous sensation has predisposed it to react more readily to the second and third irritation and we must ask, How is that possible?

We can observe that the irritation affecting the moner produces certain chemical changes in its substance, and also the motions of the animalcule are in the same way accompanied by such changes in the protoplasma. The process of life, even if the creature is at rest, is an unceasing activity. Oxygen is constantly being absorbed and food assimilated while the waste products are excreted in the form of carbonic acid and in other decompositions. The rebuilding of the life-substance by assimilation takes place in such a way as to preserve the old arrangement of molecules. Even on the skin of the hand a scar remains visible years after the wound is healed, because the form and arrangement once produced is preserved: it is transmitted from the old substance to the new growth of cells developing therefrom. This preservation and transmittance of form is the physiological condition of memory. If certain changes which take place in living substance are accompanied by sensation, the preservation of certain physiological forms, produced by such changes, will preserve the corre-

sponding forms of sensation also. They are registered in the protoplasma similarly as a speech is recorded on the tin-foil of the phonograph. If the physiological forms of sentient matter are called into activity by some stimulus, it will reproduce in a weaker form the corresponding sensation just as the phonograph will reproduce the speech.

Memory, therefore, is the psychological aspect of the preservation of physiological forms in sentient substance and is as such the conditioning factor in the development of knowledge from sensation.

The arrangement of the molecules becomes more and more adapted to the impression of their surroundings. Thus under the constant influence of special irritations, special senses are created. Given ether-waves of light and sensation, and in the long process of evolution an eye will be formed; given air-waves of sound and sensation, and in the long process of evolution an ear will be formed. Thus sensation, with the assistance of memory adapting itself to its conditions, produces the different sense-organs.

The different sense-organs possess their "specific energies," as Johannes Müller calls their inherited memory\* of reacting in a special and always the same way upon irritation. Irritations of the eye produce in the optic nerve sensations of light, and irritations of the ear produce in the auditory nerve sensations of sound, even if there be neither light nor sound, but other causes, as, for instance, electric currents. The percepts of vision are felt as images which we project outside of ourselves to places where, by the experience of touch, we have become accustomed to expect their presence.

A new percept of a thing that has been perceived before, will, under ordinary conditions, be recognized as the same. The new percept producing in the sensory nerves the same form of motion as the old percept of the same thing, finds certain brain-structures predisposed to receive it. Being produced in structures shaped by all the former percepts, it at the same time re-awakens their memories. All living bodies have thus become store-houses of innumerable memories, which are treasured up since organized life began on earth and are transmitted and added to from generation to generation.

The percepts of our senses, being specialized acts of feeling, are the elements of our psychic life. They are the facts (or if you so please the ultimate facts) given by reality; and it is from them that we derive all the knowledge we have. From them all our abstractions grow, our concepts, our formal thought, our ideas, and even our ideals. All the higher intellectual and spiritual life of man's consciousness, the schemes of

\* See OPEN COURT, Nos. 6 and 7: Ewald Hering, "Memory as a General Function of Organized Matter."



the inventor, the fancies of the poet, and the theories of the philosopher, blossom forth from, and can be reduced to, the simple data of perception.

The simple phenomenon of sensation has in the long process of evolution grown highly complex. The nerves of animals being centralized in the brain, their feelings form a multifarious unity which is called consciousness. The unity of consciousness is not (as has been supposed in former centuries) the life-principle, nor is it the soul of the animal, and still less is it a substance existing independent of the body of that creature. On the contrary it is the product of the whole organization. Consciousness is a very complex and unstable state, consisting of many half-conscious and sub-conscious feelings, which in a healthy state of mind are focused in the present object of attention.

The whole organism with its structures and forms, in so far as we consider its psychical side, is called the soul of that organism. Soul, therefore, we define as the psychical aspect of all the organic forms of our body.

Mind is a synonym of soul. However, the word soul is used with special preference when we refer to our emotional life, while mind rather denotes the intellectual activity of the organism. When we speak of spirit, we think of soul-life without having any reference to the bodily forms in which it manifests itself. In the same way we speak of "the spirit of a book" and "the spirit of the age." If "spirit" is supposed to have an independent existence of itself, the word becomes synonymous with "ghost."

We sum up:

Memory is the law of preservation of psychic forms. From simple sensations it has produced sensory perceptions in well-organized sense-organs, and then from the perceptions of the sense-organs the concepts of the mind. In the further progress of evolution we reach the domain of knowledge represented in abstract ideas with all their rich and varied forms of thought, which lead man into the provinces of science, art, religion, and philosophy.

P. C.

## DREAMS, SLEEP, AND CONSCIOUSNESS.

A PSYCHOLOGICAL STUDY BY GEORGE M. GOULD, M. D.

### 1. PREFATORY.

The design of this paper is to study the nature of consciousness and of its origin, from the facts of sleep and dreams. But since even one's own dreams are vague and elusive, those of another person must be particularly so, and, it therefore seems necessary to depend mainly upon one's own dreams for data. Hence the apparent egotism of the references to follow.

The facts supposed to be known are, some of them, as follows. A sensory, afferent, or centripetal nerve is one that conveys an impulse from an outlying or peripheral point towards the spinal cord and brain. In some ganglionic centre it becomes an efferent, centrifugal, or motor impulse, that is conveyed by the appropriate

nerve to the muscles of the part first stimulated, and this part is accordingly moved or becomes otherwise functional. Stimulus of the nerve leading from the skin, at any point in its course, produces the same motion, and an electrode, thrust into the cortical centre, also produces it. But the action of this centre is also directed by the consciousness or will: we can move the foot without its having been hurt. Consequently, commissural, or associate fibres, must proceed from the motor centre to the organ of consciousness to convey its impulses to this organ, and yet others to convey mandates from consciousness to the motor centre. It is the same with every sense-centre; it must have afferent and efferent fibres uniting it with the higher centre of consciousness. These facts necessitate a localization of the organ of consciousness. Such cases as "The American Crowbar Case," and a thousand observations in vivisection and pathology, show that this organ is located in the frontal lobes of the brain. The theory of sleep and dreams now assumed is, that in sleep, all the subordinate centres of sensation and motion are non-functional, neither influencing the activities of the organ of consciousness nor influenced by it, and that dreaming is the mimic play of the organ of consciousness without the stimulus, the inhibition, or the data—material—habitually furnished by the subordinate centres.

### II. WHAT IS SLEEP?

So long as physiologists have not accurately determined the physiological conditions of sleep, we cannot be dogmatic in our definitions. But whatever else it may be, it is essentially a condition of rest. Our waking life is characterized as a life of action, that is, of the outlay of force. We picture to ourselves the great motor centres of the brain and cord as undoubtedly recouping themselves, even during waking activity, from the great manufactory of force, the digestive and assimilative system; but it is also necessary to suppose that, during waking, we are, as it were, "running down," trenching closer and closer upon both the store in reserve and the power of ready manufacture, so that a time at last arrives when all expenditure must cease and the process of restoration and restoration must have sole sway. Nervous phenomena are plainly phenomena of the discharge, guidance, and distribution of force. Functional activity everywhere exhausts, and necessitates periods of rest, regeneration, and restorage. It is this dynamic aspect of the question that is certain and suggestive. Sleep may be thus partly defined as the cessation of the functional activities of the sensory and motor centres that habitually consist in the reception or the discharge of force. Organs, whether of motion, sensation, or co-ordination, are not now pushed into action by the messages of command from the resting or sleeping centres. I am aware that this does not account for the difference that undoubtedly exists between the rest of sleep and that of waking. There is, of course, some mystery here, though I do not believe it a profound one. When awake, whether resting, or the origin of muscular contractions, a motor centre is probably the source of continuous discharge. All muscles have *tone*, many are required to be persistently innervated, and any or all may instantly require power. But in sleep the function of regeneration of nerve-force predominates over the discharging function. One organ cannot at the same moment perform two totally different acts or functions equally well, and hence one must be paramount. Now, unless discharging, a centre cannot affect either muscles or consciousness. If it do not affect muscles, it rests. If in addition it do not affect consciousness, it sleeps. When, in all motor and sensory centres the regeneration or restorage function predominates over the discharging function, and when, therefore, the organ of consciousness receives from them no discharges, we have the general condition of sleep. Permanent predominant discharging constitutes the waking condition of centres, single or general; permanent predominant regeneration of nerve-force constitutes sleep. In this, as in many other respects,



it is highly interesting to find, as has lately been done,\* that the renal secretion of the sleeping-hours is distinctly stimulant and convulsant, while that of the waking hours is soporific and narcotic. We thus see that by some not-understood method nature eliminates during wakefulness the material of the blood that would, if kept in it, dull the keen edge of action, whilst on the other hand, there is during sleep, strained out of it materials that would spur the centres into wakeful activity. This fact is very suggestive †

### III. WHAT IS CONSCIOUSNESS?

A simple reflex act is one that proceeds from a single stimulus without the implication of other possibly-related centres. The subsidiary centre intermediating the motor response is sufficient to effect the objects of the act. If the act is more than reflex, if more than one centre has to intermediate the complex act, the impulse must proceed from a higher co-ordinating focus that uses the subordinate centres as its media or instruments. The centre of a simple reflex act may be called presentative, that or those of others placed over them, representative. Consciousness may tentatively be considered as the single and highest co-ordinating focus of all the representative centres, or the unique re-representative one. Hither proceed the centripetal lines of stimuli from all points of the periphery. But a moment's consideration shows us it is not only a focus, and one exercising a re-representative function alone. The primary object of all stimulation is reaction; hence, like all its subordinates, it is also, and in fact largely, directional, executive, governmental. In sleep the subordinate or representative centres are not functional, no peripheral stimulus reaches it, and it issues no orders to underlying centres of motion.

### IV. DOES CONSCIOUSNESS SLEEP?

Sometimes we have dreams in sleeping, sometimes we do not. Strict examination of our waking consciousness shows it is not a matter of memory: we do not dream all the time when asleep; we sometimes forget our dreams. Upon waking, we sometimes clearly remember our dreams, at other times our memory is confused; or, again, we are only certain that we have dreamed, but without a trace of what it is we dreamed; and lastly, we are often perfectly sure we had no dreams. Moreover, as all vital functions must have their rhythmical periods of rest, even the heart and lungs being no exception, so the organ of consciousness must sleep. In this fact lies the explanation of what must be considered the pathological character of the consciousness of a vivid and continuous dreamer. An organ of consciousness, if kept by its own hyperæsthesia, or by the fevers and abnormalities of its subordinate centres, or by the unremitting bombardment of multiform sense-stimulation, in a condition of unrest, must exercise an irregular and poor waking control of the body. If the general never slept, his army would soon sleep—the sleep of the vanquished. Forced wakefulness was the most horrible of ancient tortures. The physician well knows that his prognosis often depends upon the effect of his hypnotic.

### V. THE DIFFERENCE BETWEEN THE DREAMING AND THE WAKING CONSCIOUSNESS.

The waking consciousness, as we have seen is the highest unifying centre of the whole organism. It is the focus wherein memories of all past experiences are correlated with all present stimuli or motives, and whence the command is given that is best to subserve the preservation of the organism. The dreaming consciousness, in the first place, is evidently deprived of the great body of

present incitants to action: all stimuli are wanting, all subordinate centres are functionless. What material has it to work upon? From what data must it now proceed? Plainly, those of memory only. But in dreams it is a striking fact that remembered things are not orderly, they do not correspond to reality, but are fantastic and untrustworthy. Why, then, does the waking and sleeping memory differ in such a highly important matter as correspondence with reality? Evidently because in sleep the control of reality is not present; because memory is a function of subordinate centres as well as of consciousness. No more satisfactory conception of memory can be given than that its physical basis consists in a faint reproduction of the same ganglionic discharges that took place in full force at the time of the original sensation or action. If, therefore, the subordinate sensori-motor centres are not discharging toward the consciousness-centre, all that is left in this centre is the *memory of a memory*,—and, in fact, such a designation alone conveys a conception of the unreal and ghost-like nature of the memory of the dreaming consciousness. This centre in dreaming acts weakly and faintly in the same way that it formerly acted strongly when fed by the full forces of its waking subordinates. But in sleeping it remains without the control of reality, which is always logical or obedient to the law of causality; and hence, in so acting, it must be illogical and fantastical.

### VI. ORIGIN AND NATURE OF THE WAKING CONSCIOUSNESS.

The organ of consciousness is single, specialized, and localized. Dreams show us that while the habitual sensori-motor functions and all stimuli are absent, consciousness may be intensely active. Its essential functions are preserved in sleep, and this, were it a cerebrally diffused organ, would be impossible. From old consciousness has been compared to the constriction of an hour-glass through which the sand must pass grain by grain. But one train of ideas can occupy consciousness at one time, and it is always a train, a line, a succession of single stimuli, to which it reacts. This is equivalent to saying that it reacts to the strongest stimulus presented at any one instant. This is its simple form, best illustrated in the consciousness of the dog, where it is always and as it were, mechanically responsive to the presented object. However obedient and engrossed by a duty or demand upon its attention, let there suddenly appear another stimulus,—another dog, a physiological need, etc.,—and previous objects of attention are, as it were, annihilated in the total engrossment of consciousness with the new object. It is the same with almost all animals. Remembrance of past danger in all hunted animals keeps consciousness keenly alert to the signs of danger, so that the appearance, even the thought of such signs, at once floods the organ of consciousness with powerful stimuli, to the exclusion of all others. Indeed, it does not seem absurd to suspect that the escape from danger has been the strongest factor in the development of consciousness. It would certainly emphasize the quality or ability of differentiating self as the object of consciousness, and setting it clearly forth as the chief object of solicitude. An animal rises in the scale of intelligence just in proportion as it is capable of preserving clear memories of past experiences individual or racial, and of fusing these with the present stimulus so that the resultant action shall most successfully secure the preservation of himself and his species. The essence of the matter consists in this fusing process, and the consciousness of man differs in no essential characteristic from that of animals except that, at the instant of fusing, a wider sweep of possible results, a more reflective weighing of more diverse experiences and complex motives, enters into the count. Extension of the weighing time, complexity of the pondered objects, and delicacy of the balancing mechanism—these are but differing degrees of the same powers that belong to both alike.

The suffering struggling consciousness is vehemently endeavoring to arouse subordinate centres,—a condition strangely called "nightmare."

\* *Leçons sur les auto-intoxications dans les maladies.* Par Ch. Bouchard.

† It is also curious to find the popular belief that relatively more births occur in the small hours of the night, is scientifically true—see Dr. Swayne in *Bristol Medical-Chirurgical Journal*, Sept. 1888. One wonders whether the common belief that more deaths occur in these hours is also true.

‡ Unless specified, and especially now, I mean by the dreaming consciousness, the placidly, reflectively, dreaming one,—not that peculiar one in which



The first to be evolved must have been the extension of the weighing time. The mechanical jumping from one presented object to another with unpondering rapidity is naive but primitive. That the serpent in all antiquity has been worshipped as the wisest of animals, may have been because we catch in the restrained glitter of his eye the ability to ponder conflicting motives and stimuli longer than others. Action does not follow stimulus with the celerity of a mechanical force. In the struggle for existence, that animal would rise above his mates, which, other things being equal, could at will prolong the time between the reception of competing stimuli and the resulting action. With this ability would go, *pari passu*, the ability to handle more varied stimuli and motives. Delicacy of equilibration of multiform forces held long in suspense, is only possible to the highest human consciousness, and is its superb characteristic.\* Thus to hold in suspense many competing stimuli, and weigh them accurately, would require a large and complexly organized centre such as the frontal lobes, whose human development has been exactly proportional to the growth of intelligence. After a period of imaginative excitement or creative intellectual work I have a sense of constriction and tension in the frontal lobes, and especially of the right side.†

#### VII. ORIGIN AND NATURE OF THE DREAMING CONSCIOUSNESS.

It is of the very nature of the waking consciousness that it must be always responsive to some stimulus; that it must be equally responsive to either of the many and varied possible stimuli; and, lastly, that it must respond to a stimulus of low intensity, however delicate it may be. It is this delicacy of action that I wish to emphasize. Irritation at extreme or unnecessary noises; æsthetic pain at crude and loud colors; sensitiveness to differences of stimulus of any kind; distinguishes the highly organized personality. There is no bolometer or other instrument of precision delicate enough to measure the inconceivable minuteness of the force that is sufficient to influence consciousness. This quality proves of profound service in sleep. When the animal or man lies down to sleep, I think that, at first, consciousness also sleeps, since to some extent it also must yield obedience to the general law of the rhythm and rest. When sleep is permitted, it is because it is safe to permit it. Hence sleep may at first be dreamless with less danger to the organism. But, since the struggle for existence began, the sleeper has needed a sentinel to stand watch over him, and be on the alert for any one of his thousand enemies. When one thinks of the manifold agencies of harm such as fire, robbers, impure air, malposition of the body, too great heat or cold, physiological needs or pathological conditions, etc., etc., to which the best protected and most civilized people are liable, and how insecurely most of us sleep,—and when we add to all these all the dangers and enemies and perplexities of the savage or the higher animals, we can then vividly realize how necessary such

a sentinel is for the preservation of the organism and the species. That the period of the exhaustion of consciousness is more brief, that its resumption of function would be more speedy, than with other organs, goes without saying, and especially since its function is mainly equilibrational, directional, mirror-like, re-representative,—not creative, remoulding, motor or representative. I am certain that my dreams grow more vivid toward the time of awaking, just as I have no dreams in the first hours of sleep. My own dreams also show plainly the sentry-like function of the dreaming consciousness. I am very sensitive to malposition of the body in sleep. Pressure upon a nerve-trunk is with me extremely prone to produce the phenomenon popularly known as "sleep" of a limb. For this reason I sleep upon a hard bed, and I can sleep in but one position, upon my back without pillow, and without flexion of any limb. If by accident these conditions are broken during sleep, I have as a result a peculiar experience that has happened to me repeatedly and all through my life. My dream at first takes on a tinge of impending danger until I become aware that I must awaken myself. The labor of doing this is both powerful and painful. I am truly conscious of my effort, of a struggle with my dormant members. The energy spent in endeavoring to arouse myself is tremendous. At first I can perhaps move but one finger, then I can bring other fingers into the control of the will, finally the alternate flexions and extensions include the hand, and I may have to wave and thrash the hand and arm for sometime before arousing a sufficient overflow of stimulus to reach other motor centres and spur into the condition of "awake" all the sensory and motor centres of the body. Sometimes the head is the movable part, and this is rotated from side to side with ever increasing extent and quickness, until the general arousing is attained. All this is to me an indication of the sentinel function of consciousness during sleep, of its quick response to slight stimuli, of its directional control of subordinate and representative centres directly intermingling muscular action. It also shows that it is executive only through its agents. Its motor commissural fibers must end in the direct motor centres about the fissure of Rolando. But it also implies that its sensory fibers are, in part, direct, and warrants our belief that the great bundles of centripetal fibers proceeding from the periphery, split and whilst the greater number proceeds to the direct sensori-motor or representative centres about the Rolandic fissure, a limited number proceeds directly to the organ of consciousness. Such an anatomical arrangement would explain the sentry-like function. It would thus become clear why a peripheral stimulus, as a malposition of the body, could arouse the light-sleeping organ of consciousness, which, in turn, could arouse the representative or direct motor Rolandic centres. As will be noticed, the dynamic aspect of the question is always decisive, since the control of subordinate centres is only at first of the smallest, or most easily moved muscles, such as the fingers, a hand, or the head placed in unstable equilibrium. And not only this,—I have often had the sense of weight and discomfort of a limb before I had succeeded in awakening the centre that controlled that limb. The argument for direct sensory fibers to the organ of consciousness is still further strengthened by the frequent phenomenon of my sleep that follows: Upon being aroused by a very sudden noise I have often clearly recognized the fact that I hear the sound with my consciousness, if I may be pardoned the seeming absurdity, before I do with the auditory centre. The vibratory impact arouses consciousness a moment before it arouses audition. The safe-guarding function of consciousness in sleep is thus again exemplified. In "Science," Nov. 2, a correspondent describes an interesting phenomenon of his dream that also throws light upon this aspect of the question. The strokes of a wood-chopper were, in the early part of the dream, irregular and without order. They then became rhythmical for four strokes and then the sleeper awoke to find the clock striking midnight. After awakening he counted four beats and thus he knew that the clock-strokes brought into the

\* Discriminative attention is a human faculty, and appears to be either a selective receptivity of the organ of consciousness, an exclusive reception by it of one kind of stimulus, or the exclusive direction of its innervation upon a single or a special set of subordinate motor centres.

† Still another indication is the fact daily observed by every physician, that eye-strain is a frequent and persistent cause of frontal headaches. It may be worth noting that, like the centre of articulate speech, the organ of consciousness must, by its very nature, be a single organ. Bilateral-symmetry is the law in most other functions of the body and its nervous mechanism. Speaking evolutionally, articulate speech is an accidental afterthought, and so must be located upon one side or the other of the two-sided brain. Upon which side, is not only not invariable, but it is even found to follow—or cause?—the education of the opposite hand for intellectual work. In a recent very interesting case the speech-centre was proved to be localized upon the left side, because, though the man was left-handed for everything else, the one intellectual act of writing was done with the right hand. Arguing from analogy, it might be supposed that the organ of consciousness for right-handed people would be found in the left frontal lobe, since the right hand is the one most generally used for intellectual things as writing, gesturing, etc. There are other considerations that would argue the reverse.



dream their rhythm at about the fifth stroke, and made the axestrokes coincide with the clock-strokes. In other words, the sound and its rhythm reached consciousness directly, impressing upon it their own peculiarities, which persisted for a time until the stronger stimulation of the auditory centre aroused all the mind into "awakenedness." Finally, there is one other curious illustration of the question that also shows the delicacy and the independence or the action of the sleeping consciousness. I allude to the ability possessed by some people of, as it were, winding up the alarm of their mental mechanism so that they shall awake at a given hour. I have known people that sleep soundly and awake habitually within a few minutes of the time they had, upon going to sleep, determined to awake themselves. My own attempts to do this always result in lying awake the most of the night. My alarm goes off at a *sof-p-con*, entirely too soon, and keeps on rattling, at a rate!

Hypnotism, it may parenthetically be remarked, would seem to be the reverse of the dream-state. In the latter there is no centripetal stimulus, the subordinate motor centres being quiescent. In the hypnotic state the senses are alert, the sensori-motor centres actively functional, but the centre of consciousness is asleep, or, what is the same thing, supplanted or enslaved. How this can be done is a mystery. However well attested one is inclined to think it impossible, and that it does not happen, except in the natural way that a pliant weak mind finds satisfaction in acting a rôle, called the hypnotic state.

#### VIII. INSOMNIA.

In passing we may note the influence of the kind of waking life upon the dreaming consciousness. Work, especially physical work, but even normal mental work, is usually followed by refreshing and comparatively dreamless sleep. Worry, solicitude, and vexation, bring troubled dreams and even pronounced insomnia. Why is this? In normal exhaustion of the nervous centres there is no conflict nor unwonted excitation of the centre of consciousness. There is a low reserve, and investment, or action, must cease until interest or income accrues. In long-continued anxiety, however, consciousness is stormed by a multitude of conflicting and continuous stimuli, leading to no definite resolve and action, and hence ending in a surcharge of energies, probably a real hyperæmia and febrile excitation of the organ, that do not cease at night or with sleep. I do not doubt that the frontal lobes of a man dying finally worn out with years of care and disappointment, would, under the microscope, show a different condition from those of a healthy and happy man. On the other hand, if hyperæsthesia is pathological, anaesthesia is certainly indicative of a poor type of consciousness. That must be a vegetative sort of consciousness that sleeps as soundly and as long as the lower centres. No nimble-witted man can fail to be a dreamer. *My* friend must be a dreamer of interesting dreams! One that does not dream is not exceptionally sympathetic, responsive, alert;—he has not highly keen sensibilities, is not nobly religious, or charitable, or aspiring.

I have always been subject to insomnia of the following kind,—I am apt to have periods of paroxysmal, emotional, and imaginative excitement. If I am pursuing an object of study, trying to solve some scientific or practical problem, or if greatly interested in some work of art, etc., I habitually awake in the night after a short sleep, and at once the whole machinery of intellect, imagination, and consciousness is in full cry! The heart is aroused, and by the spur of excitement, is put into the field at full speed. It is clear that this organ of consciousness requires the best of blood, and a deal of it! All this would appear to be the overflow of nerve-force from the centre of consciousness along the centrifugal lines of its habitual discharge to the subordinate centres that are thus kept in a state of activity though really needing rest. All the devices for wooing sleep are but tricks to prevent the outflow. None of the methods commonly employed, help me, and they appear to be based upon a false principle. They generally consist in a repeti-

tion of the same discharges, or an exercise of the same subordinate centres. However often we count or repeat the letters of the alphabet, or in thought, walk up and down the same path, the mimic and weak outflow is by the same commissural fibers to the same subordinate centres. If I am ever able to succeed by any device at all, it is by deflecting, derouting, and subdividing the outflow in such a way that it does not flood any single subordinate centre. No single train or repetition of thought is allowed, the stream is divided so that each subsidiary centre gets such a minimum of excitation that it can resist it, and thus all are calmed. For example, I think for a passing moment, of each part of my body in succession, and of each function of the same, of each sense, with the origin, course, and result of each sensation. Thus traversing the round, I, as I believe, drain off and subdivide the superabundance of innervation to every possible outlet. Instead of persistently *doing* something, or constantly exercising motor centres exclusively, it is better to trust to a mimic sensational exercise. Thoughts of personal motion are outgoing and stimulating, thoughts of visual and auditory sensations are receptive and calming. Another device I have successfully used is to imagine myself in mid-ocean, becalmed, alone, not frightened, and looking out over a monochromatic ocean to all points of the compass successively, thinking of all the strange life in the depths below me whose bottom leads on and on to distant isles,—watching also the starlit space above, as it pales into magical sun-rises, and the ever-changing phantasmagoria of cloudland flows ceaselessly by.

(To be concluded.)

#### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

#### CHAPTER XXIX.—Continued.

"How is the Lady Bergau?" asked the Princess, of her attendant, the little Gotlinde Thurn.

"Very ill, your Highness. She has been much disturbed by the sudden departure of her husband, and her confinement is expected every hour."

"Bergau gone away?" asked the Princess, in astonishment.

"The Sovereign has commissioned him to purchase some porcelain curiosities in a distant city."

The Princess looked significantly at her confidant.

"Forgive me, your Highness, if I venture to say," continued the lady-in-waiting, "that we are all indignant. Bergau, it is said, had a scene yesterday with the strange lady at the Pavilion; and this morning early the Sovereign expressed himself, in giving his orders, in a way that made any objection out of the question."

"What has happened at the Pavilion?" asked the Princess.

"That is not known," replied the angry lady; "but, from some expressions of Bergau, one may conclude that the stranger has raised pretensions, demanded an introduction at Court, and threatened to leave in the event of a refusal. The arrogance of the woman is unbearable. We all beg that your Highness will be gracious enough to maintain our rights."

"Good Linda, I am a dangerous ally for you," replied the Princess, sorrowfully.

\* Translation copyrighted.



The birthday of the Princess was kept both by the Court and city. Many people wore gala dresses; numbers pressed with their congratulations into the ante-chamber of the princely daughter. The Princess received in full dress on this day. She appeared for the first time out of mourning, and looked lovelier than ever. In a side room, the door of which was open, stood the tables, which were covered with presents. Much were the splendid dresses which the Sovereign had ordered for his daughter admired by the ladies; and scarcely less so the beautiful miniature work of the Magister by the connoisseurs.

About three o'clock the concert began in the gardens of the castle. Gentlemen and ladies of the nobility, the officials, and citizens, entered the space marked out for them. The numerous attendants of the Princess greeted the ladies of the company and arranged them in a large circle, behind which were the gentlemen, forming a dark setting; on one side the families of the Court, on the other those of the city. The guests accommodated themselves easily to the compulsory mathematical line; it was only on the city side that there was any irregularity. The new city councillor Gottlieb, a distinguished butcher, pushed in from behind his wife and daughter, and placed himself squarely in the front row; and it required the positive directions of the lady-in-waiting to make him retreat to his place.

"I pay the taxes," said Gottlieb, stubbornly, to those about him; but even from his neighbors he was the object of a disapproving smile.

When Ilse entered this society of strangers with her husband, she felt alarm at the cold, inquisitive looks directed at her from all sides. The Chamberlain conducted her to the first lady-in-waiting. The Baroness bowed in cool acknowledgment, and pointed to the place where she was to be stationed—at the end of the Court side, opposite the entrance. The royal party, preceded by the Marshals, made their appearance punctually; the Princess, radiant and smiling, on the arm of the Sovereign; the young Princes behind. The ladies' dresses rustled like a forest of trees, as they bent in deferential salutation; behind them the heads of the assembled gentlemen dropped with solemn movement. The Princess executed a circular bow—a consummate piece of Court *technique*—and proceeded to walk about the line. The sun shone with summer warmth, and all rejoiced in the beautiful day and in the happiness of the child whose birthday was now celebrated. The Princess looked enchantingly lovely, and showed, by her noble appearance and gracious manners, how well fitted she was to do the honors of a Court. The ladies-in-waiting preceded her, beckoning to individuals to come forward, and mentioning the names of those who were

strangers to the Princess. She had a kind word for every one, or a nod and sweet smile, which made all feel that they were the object of her attention. The Sovereign, to-day, appeared among his citizens with the self-possession of a family father.

"A large number of old friends and acquaintances," he remarked, to the head Burgomaster. "I knew that this would be quite after my daughter's own heart. It is the first time since her severe trial that she has had the 'opportunity' to meet again so many that have taken a friendly interest in her life."

But none of the ladies there looked with such eager attention on the circle of the Princess as Ilse. She forgot her anger at the prejudices of class, and the annoyances attendant on her solitary position among these strangers, and looked unceasingly at the young Princess. Like all present, she felt the charm of her gracious manner. This facility of giving pleasure to others in a few minutes by merely a look or word, was quite new to her. She looked back anxiously at Felix, who was watching the graceful movements of the Princess with pleasure. She came near, and Ilse heard her questions and answers to the fortunate ones with whom she was more familiar. Ilse saw that the Princess cast a fleeting glance at her, and that her expression became more serious. The Princess had lingered with a lady who stood in front of Ilse, inquiring with interest after the health of her sick mother; she now passed slowly by Ilse, bowing her head almost imperceptibly, and said, in a low voice, "I hear you intend to leave us."

The unexpected question, and coldness of the tone and look, aroused the pride of the Professor's wife, and, under the flash of her large eyes, the Princess also became more erect, and they exchanged a mutual glance of hostility, as Ilse answered:

"Your Highness will pardon me! I shall remain with my husband."

The Princess looked at the Professor: again a pleasant smile passed over her face, and she continued her progress. Ilse also turned quickly toward her husband, but he was looking about innocently, and, pleased with the world, he had not observed the little scene.

The Sovereign, however, had; for he stepped right across the space to Ilse, and began:

"Among old acquaintances we also greet our new ones. Not that this expression is applicable in your case to me and the Hereditary Prince; for we owe thanks to you for the hospitality of your home; and we rejoice to show you to-day the circle in which we live. I lament that your father is not among us. I cherish the greatest respect for the useful activity of his life; and I know how to value all his services to agriculture. He has obtained a prize at the Agricultural Exhibition; pray convey my congratulations to



him. I hope his example will be followed throughout the country."

The Sovereign well understood how to make up for the neglect of his Court to Ilse. A Professor's wife has many objections to Court usages and high rank; but when well-deserved praise is accorded by princely lips, before a distinguished assembly, to those she loves, it affords her the greatest pleasure. After the annoying question of the daughter, the striking attention of the father was a great satisfaction. Ilse gave the Sovereign a look of deep thankfulness, and he now turned kindly to her Felix, and remained long talking with him. When at last he went on to others, the uncommon consideration he had shown the strangers before the assembled company had the usual result; the gentlemen of the Court now thronged round Ilse and the Professor, to show attention also on their part. Ilse now looked about her with more composure, and observed how slowly the Hereditary Prince passed along the circle, singling out gentlemen and ladies according to a secret systematic rule, and at the same time stopping occasionally and moving his eye-glass, as if he were taking something into consideration. Prince Victor, on the other hand, pursued a thoroughly irregular course, like a comet, whose points could only be determined by looking out for the fairest faces. He had talked long with the daughter of the city councillor, Gottlieb, and had made the young lady laugh so much that she was alarmed at herself, colored, and held her handkerchief before her mouth. He then suddenly approached Ilse.

"A horticultural exhibition like this is exceedingly entertaining," he began, carelessly, as if speaking to an old acquaintance. "Yet, after all, there are many thorny cactuses to be handled."

"It must be very wearisome for the princely party, who have to speak to so many," said Ilse.

"Do not imagine that," replied Victor. "It is pleasant to see so many people before one, who dare not open their mouths unless told to; princely blood will bear still greater fatigues for that enjoyment."

The company were set in motion. The Sovereign offering his arm to the Princess, led her into a great, richly decorated tent. The guests followed, and a host of lackeys offered refreshments. After that the ladies seated themselves behind the royal family; the gentlemen standing round. The concert began with a majestic flourish of the kettledrums; and, after a short time, ended with a furious onslaught of fiddles. The Princess now noticed some of the gentlemen, but with less regularity than the ladies. Ilse was engaged in conversation with Miss von Lossau, but the Princess walked to where Felix Werner was standing and asked eager questions. The Professor became animated, and explained; the Princess asked more, laughed, and

answered. The officious Lord High Steward glanced at the clock. It was high time for the ladies of the Court to dress for dinner, but the Sovereign nodded to him, looked contentedly at the Princess, and, in the best of humor said to his son: "To-day she reigns; we will willingly wait."

"My dear Highness forgets us all, she is so engrossed with the stranger," whispered Miss von Thurn, to Prince Victor.

"Calm your faithful heart, Dame Gotlinde," said Victor. "Our Lady Bradamante has not used her conquering weapons for a whole year. She would try her powers to-day even upon a cabbage-head."

The following morning the Princess sat among her ladies, and they talked, as usual, of the previous day, admired the Princess, condemned a little those who were absent, and expressed astonishment at the toilet and manner of several city ladies.

"But your Highness did not speak to the wife of the City Treasurer," exclaimed Gotlinde Thurn; "the poor woman took it as a slight, and cried after the concert."

"Where was she standing?" asked the Princess.

"Near the stranger," answered Gotlinde.

"Ah, it was on that account," said the Princess. "What is she like?"

"A round little woman, with brown eyes and red cheeks. My brother lodges in her house; that is how I know her. She makes admirable tarts."

"Make up for it to her, Linda," said the Princess; "say something kind to her for me."

"May I tell her that your Highness has heard of her excellent cherry-brandy, and would be glad to have a few bottles of it? That would make her more than happy."

The Princess nodded.

"The daughter of the City Councillor Gottlieb," said the Baroness Hallstein, "has become quite a belle."

"Prince Victor forgot everybody in his attentions to her," exclaimed Miss Lossau, with vexation.

"You may congratulate yourself, dear Betty," replied the Princess, sharply, "if you are forgotten by my cousin. The attentions of the Prince are generally a source of alarm for the ladies who are favored with them."

"But we are all grateful to you," exclaimed Baroness Hallstein, a lady of spirit and character, "for having supported the Court in opposition to the lady from the Pavilion. Your cool remark gave general pleasure."

"Do you think so, Wally?" said the Princess, thoughtfully. "The woman is proud, and was defiant. But I had wounded her first, and on a day when I had the advantage."

(To be continued.)



## NOTES.

Prof. Ernst Mach's work upon Mechanics, *Die Mechanik in ihrer Entwicklung*, etc., has reached its second edition.

M. Binet expects, before long, to present to our readers the results of some experiments upon the nature of unconscious phenomena, not as yet published.

In his lecture before the Chicago Secular Union, Mr. Horace C. Bennett closed with the following remarks:

"To the three eras in one's life, birth, marriage, and death, should be added another, namely, the date of citizenship.

"The grandeur of citizenship and individual sovereignty should be the first, and repeated and re-repeated lesson to every child.

"Every young man should be impressed, as he steps upon the platform of American sovereignty, with the responsibilities and duties imposed, being at once the equal of all, and inferior to none—one of the kings of earth. We want in this country an invincible integrity, a grade of ethics, a sense of honor, and a condition of manhood and womanhood so high and universal, that government, in the sense of past application, will not be needed."

The one hundred and thirtieth anniversary of the birth of Robert Burns will be celebrated on Jan. 25, at the Central Music Hall, Chicago. THE OPEN COURT will soon publish a contribution from Gen. M. M. Trumbull upon the influence of Burns among the working-classes of the Anglo-Saxon peoples. The homely pathos, the broad humor, the exquisite delicacy of the lyric touches of the Scottish poet, have delighted more than the nation of his birth; humanity answers to the sentiment of lines like the following:

Then let us pray that come it may—  
As come it will for a' that—  
That sense and worth, o'er a' the earth,  
May bear the gree, and a' that.  
For a' that, and a' that,  
It's coming yet, for a' that,  
That man to man, the world o'er,  
Shall brothers be for a' that!

In a letter to the *Pail Mall Gazette*, touching a statement from a Chicago paper that he was "disposed to judge Spiritualism more or less favorably," Prof. Huxley writes: "The statement and the suggestion are alike erroneous. \*\*\* The oldest in date of my spiritualistic experiences goes back about five-and-thirty-years. It took place at the house of a relative of mine, and the "medium" was a pleasant, intelligent, well-mannered woman, a native of the United States, whom I will call Mrs. X. The chief performance was the usual pencil and alphabet business, and operations commenced with me as scientific witness and doubter general. The ease and rapidity with which that transatlantic lady fooled me was, as she herself might have said, a caution. The name of the dead friend of whom I was thinking, was spelt out in no time, and I was left morally agape, while Mrs. X. followed up her victory, and made one after another of the company a still easier prey. However, as soon as I could pull myself together, I watched the proceedings somewhat narrowly. I noted that the medium's success was by no means uniform; and in the case of one of my friends, who enjoyed a well deserved reputation for outward impassibility, she failed altogether. \*\*\* Speaking of a conversation at a dinner given by Lord Carlisle, "I learned something else which interested me that evening. One of the guests confided to me that, some time before, he had met Mrs. X. at a country house. In the course of a séance, my informant was told that the spirit of his deceased sister Mary desired to communicate with him, and, with gravity befitting the circumstances, he took his share in the interesting, and indeed touching, conversation which followed. At the end of the séance the company broke up into groups. Mrs. X. and my friend happened to stroll away

from the rest toward a bay window, whereupon this brief but pregnant dialogue took place:—She: Did you ever have a sister Mary? He: No. She: I thought not. Any one could discern, on very short acquaintance, that my friend was a kindhearted, chivalrous gentleman; but it is not everybody who would have perceived so shrewdly that Irish wit had, for once, been too much for Yankee 'cuteness; and that the only chance for the culprit was to throw herself on the mercy of the court." \*\*\*

Prof. Huxley refers to the article of his friend, Mr. Moncreux D. Conway, in THE OPEN COURT of Nov. 8, 1888, and to the confession of the Fox Sisters, and a *propos* of the ingenious methods of mediums generally, remarks: "No one deserves much blame for being deceived in these matters. We are all intellectually handicapped in youth by incessant repetition of the stories about possession and witchcraft in both the Old and the New Testaments. The majority of us are taught nothing which will help us to observe accurately and to interpret observations with due caution. Very few of us have the least conception how much more difficult it is to make such observations and interpretations in a room full of people, stirred by the expectation of the marvelous, than in the calm seclusion of a laboratory or the solitude of a tropical forest. And one who has not tried it, cannot imagine the strain of the mind involved in sitting for an hour or two in a dark room, on the watch for the dodges of a wary "medium." A man may be an excellent naturalist or chemist; and yet make a very poor detective. But, in these investigations, those who know are aware that the qualities of a detective are far more useful than those of the philosopher."

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No. 75. Vol. II.—49.

CHICAGO, JANUARY 31, 1889.

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WILLIAM J. PETERK

In the leading essay of No. 1, Mr. Potter discusses the question of the relation of individual existence to the aggregating power and well being of society. Nature in this matter should be our teacher, and the spinal world-plan of nature is the method of differentiation. It is a process of concentrating the forces of existence which is done through the process of self-preservation. This principle of selfishness means only, not an end. Without it there would be stagnation, but the individual organism does not exist for its own sake. Nature's aim is higher, broader, richer life. The end of individual existence is the common good, the general well-being, and here is where the law of ethics and the obligations of religion bear upon social problems. Individual self-interest and enterprise only furnish the rough materials for the meliorations which mark the progress of the higher civilization.

PROF. E. D. COPE.

In Number 23 Professor E. D. Cope treats of "Evolution and Idealism," and finds in the evidence of evolution the refutation of the doctrine of idealism. He concedes that much of what we consider the objective world is unreal and has no existence, except, as we perceive it, like the snakes, for instance, to the victim of *delirium tremens*; and he agrees that "the properties of matter" owe much of their character, and even their existence, to our senses, which give matter all its qualities, or, at least, modify and change them according to the number of our senses and their ability to perceive. Yet, for all that, he says: "If a given supposed object be purely a mental state on the part of the subject, a rational cause for the production of that state is wanting."

With great self-confidence, Professor Cope says: "Evolution gives the *coup de grace* to idealism of the consistent type. In the gradual unfolding of organic life it sees the two universal facts, subject and object. It sees them interact and influence each other," and further on he says: "It is equally competent for the materialist to deny the existence of mind as for the idealist to deny the existence of matter. The materialist behold the imperfection of the senses may pronounce them to be, one by one, incompetent witnesses, and declare them to be illusions. But the fact is, both exist, object and subject, matter and mind."

WHEELBARROW.

"WHEELBARROW" speaks to the laboring men from the standpoint of a laborer, although he does not work with a shovel and wheelbarrow now. In his first essay, published in one of the early numbers of *THE OPEN COURT*, he says: "I sign my name 'Wheelbarrow' because that is the implement of my handicraft or was when I was a strong man. I was by profession a 'railroad man,' my part in the railroad business was making the road-bed by the aid of a pick, a shovel and a wheelbarrow." We quote this passage because from our personal acquaintance with "Wheelbarrow" we understand that it is literally true.

"Wheelbarrow" treats the labor question in a manner peculiarly his own, with illustrations drawn from every-day experience and presenting a moral which may be seen at a glance. He advises the working men in a friendly, persuasive way, and criticises many of their methods of reform as harmful to themselves, tyrannical and unwise. These essays have been much admired, not only by the working men, but also by men eminent in American literature. In an editorial article on "Wheelbarrow," the *Boston Herald* said: "He possesses in a striking degree the rare ability of being able to treat of complicated matters in so lucid and simple a manner as to make them easy of comprehension to those who have never before given the subject much thought. Last year he published a series of tracts on the labor question which were widely read, but not half so widely as they deserved to be. Treating of his subject from a working man's standpoint, he displayed an extraordinary wealth of apt but homely illustrations."

WHEELBARROW'S essays are contained in the following numbers of THE OPEN COURT:

Chopping Sand.....	page 353 in No. 13
The Laokoon of Labor.....	" 410 in No. 15
The Poets of Liberty and Labor. THOMAS HOOD.....	" 461 in No. 17
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GERALD MASSEY.....	" 745 in No. 26
Making Scarcity.....	" 901 in No. 34
Economic Conferences. I. A review of Geo.	
A. Schilling's lecture.....	" 930 in No. 37
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No. 75. (Vol. II.—49.)

CHICAGO, JANUARY 31, 1889.

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## THE ETHICS OF ROBERT BURNS.

BY GEN. M. M. TRUMBULL.

One of the chief tests of a great man is this, What was the ethical result of him? What influence did he have on social character and political morality? Let us apply this test to Robert Burns.

A few days ago the birthday of Burns was honored with memorial festivities by all the people of British lineage throughout the world. This poet is greeted on his birthday with a loving homage such as never has been offered to any other poet in this world. The explanation of this pre-eminent popularity is found in the universality of his genius; it embraces all mankind. A marvellous thing, when we remember that no other poet is so intensely national as Burns. He was a Scotchman in every pulsation of his heart. He was himself the intellectual Scotland of the 18th century; equally so as the Scotland of the 16th century was the incarnate conscience of John Knox. Burns is the type and model of the Scottish race in its highest development. No other man has ever stamped his own individuality upon the clay of which his countrymen are made, as Burns has impressed his personality upon all Scotchmen. Their love and veneration for him spring from gratitude and pride. He has elevated the standard of them all. He has added a cubit to the spiritual stature of every man in Scotland, from MacCallum More in his Highland castle to the humblest peasant who tends his sheep upon the mountains.

The chief elements of Burns's popularity are his lyric genius, his ardent patriotism, his manly independence, and his unselfish love toward all the children of men. "In ease, fire, and passion," says Allan Cunningham, "he was second to none but Shakespeare." He might have added that as a lyric poet, as a national song writer, he was not excelled nor equalled by Shakespeare nor by any other poet that was ever born. Burns had the divine gift of music in such excellence that he could put in tune all the different instruments in the great orchestra of man, and force them to vibrate in harmony. There are single songs of his that make the hearts of all men throb in unison together. These songs have passed out of the exclusive ownership of Scotland; they have become the

joint property of all nations in that sublime communism represented

In the parliament of man,  
The federation of the world.

It was said by Emerson that Burns made a mere provincial dialect classic. He did more than that; he glorified by his pathos and humor, not only the dialect of Scotland, but the very weeds in her valleys, the heather on her banks and braes, the hamely fare and hoddan gray of her peasantry, yea, the very rags of her poverty. He made all of them classic as the majestic imagery of Milton. He poured his soul in love and benediction upon his country in such exuberant flood that before the end of the eighteenth century it had overflowed the British Islands, and now covers all the world.

It was patriotism in exquisite refinement that caused this man, when reaping in the harvest field, to turn the sickle aside and spare a thistle because it was the "symbol dear" under which his fathers for a thousand years had fought for Scottish liberty and independence. Only a soul in love with nature manifest in the modesty of beauty could apologize to a mountaineer which the plough struggling for bread had overthrown.

There is deeper feeling still, and a closer kinsman sympathy in the apology which Burns offers to a mouse whose home with all its furniture and stores was wrecked by that same plough in that same struggle for bread. The mouse runs away in spite of the poet's assurance that there is no occasion for fear. He will not even wait to hear the explanation that the ruinous earthquake was an accident, and that the author of it was totally unaware that the mouse's home was in the ploughshare's way. There is nothing so kind and dignified in all the etiquette of courts as the tone and language of this apology:

"I'm very sorry man's dominion  
Has broken nature's social union,  
And justifies that ill opinion,  
That makes thee startle  
At me, thy poor earth-born companion,  
An' fellow mortal."

Only a poetic genius gifted with a knowledge of the divine unity pervading all things, could have made the lofty comparison expressed in the last two lines of that stanza. Only an eye, illuminated by a light brighter than the light of the sun could have seen



the spirit thread that binds even men and mice together in a communion of suffering, toil, pleasure, duty, disappointment, and an impartial mortality. Here, in the words "earth-born companion, an' fellow mortal" we find a key to the social ethics of Robert Burns. We can follow this ethical thread from the mouse to the sheep in "Poor Maillie's Elegy;" from the sheep to the horse in the "New Years Address to the Auld Mare Maggie;" and from the horse to the human brotherhood in "Man was made to mourn."

The ethics of all this tenderness to animals lies chiefly in its reflex power upon the social state; the rebounding of this charity from horses and mice and sheep, upon men and women and children. This poet whose barns were none of the largest, and seldom overloaded, recognized the claims of every "earth-born companion, and fellow mortal" to share with him in the hour of its need. That the mouse was outlawed under the "habitual criminals act," as an incorrigible thief, rather increased than diminished the charity of Burns towards him. In fact, he says,

"I doubt na, whyles but ye may thieve,  
What then, poor beastie; thou man live,  
A daimen icker in a thrave  
's a sma' request;  
I'll get a blessing wi' the lave  
An' never miss't."

Have we any ethical culture of a finer quality than that? Have the churches any more sublime religion than this philosophical socialism of Robert Burns, that he who gives a share of his abundance as justice and benevolence demand will get a blessing with the rest of it? Have they or we any more exalted theology than this of Robert Burns:

"The heart benevolent and kind,  
The most resembles God."

"The merciful man is merciful to his beast," says the scripture, meaning also that kindness to animals is a sign of a morally well-built man, and, let me add, of a brave man. I noticed when in the cavalry that a soldier who was cruel to his horse was generally a coward in battle. In mathematics, the greater includes the less; in ethics the less includes the greater; and in religion too; "As ye have done it unto the least of these my brethren, ye have done it unto me." So the demonstration is complete; the man who is tender, merciful, and just to his fellow mortals of the inferior creation will be considerate, just, and kind to all his fellow men.

The sympathy of Burns was not limited to the universe of mice, or sheep, or men. It went down into the infernal regions, and whispered hope into the ear of the arch fiend, Satan himself; but this hope was conditioned on reform.

"Then fare ye weel, auld Nickie-ben  
Oh wad ye tak a thought an' men't!"

Ye sibblins might, I dinna ken,  
Still hae a stake,  
I'm wae to think upon yon den,  
E'en for your sake."

The sentiment of his "Address to the Deil" may not be theologically orthodox, although, I think, it will be orthodox in time. Our doctors of divinity and our doctors of law have been much confused in their divinity and their law, owing to the erroneous account of the great battle fought in heaven, in the primitive eternity before time was. It is a mistake that Satan lost that battle; and for that mistake John Milton is very much responsible. Satan won it; and that explains the dominion of selfishness, inequality, injustice, avarice, lust, slavery, and gibbets upon this earth. But although Satan won that battle, the war is not at an end. Year by year and day by day the reinforcements of truth, knowledge, wisdom, philosophy, forgiveness, charity, and all the powers of light are coming up to the help of the Lord against the mighty, and the kingdom of Satan will cease to be. I do not say that it will be violently overthrown, for, aided by the poetic and prophetic vision of Robert Burns, I see the coming day when Satan himself will be converted and reformed; when even his principality shall be numbered among the powers that make for righteousness. "Nature's Social Union" broken by "man's dominion," will, by man's intellectual and moral enlightenment be restored.

The necromancy of Burns, the magnetic power by which he subdues the hearts of all men, lies chiefly in his eloquent songs. In these, the poet touches with majestic ease and magic melody every string in the diapason of human passion and emotion, from the martial thunder of "Scots wha hae wi' Wallace bled" to the sweet love whisper in "John Anderson, my Jo," where virtuous old age is glorified, and where the domestic affection of the Scottish people is made famous for evermore.

In his ideal of a social democracy we find the political ethics of Robert Burns. The key to it may be found in that manliest of democratic songs, "A man's a man for a' that." Here "sense and worth" are exalted as the only patents of nobility that can give legitimate rank or titles to any man. In the political morality of this song, the man who is worth the most is the man who has the most worth. It is the proud assertion of a laborer that he is a man for all that, and it is a dignified protest that shall stand forever against the degradation of "honest poverty." The political economy of it is the right of every man that every other man shall work. He must do something by hand or brain useful to the community.

I have heard this song criticized according to the canons of literary taste and style. I have lately read a criticism of it by Matthew Arnold, an eminent man indeed, but one who never came under the spell of its



poetry, because he never belonged to the classes represented in the song. Let him criticize it who has toiled in the field, the factory, or the shop; him who has worked out in the weather, building houses and railroads; him who has earned his honest bread up on the giddy mast, or down in the dark mine. As well criticize the declaration of independence, for its rhetoric. In fact, "A man's a man for a' that" is the American declaration of independence condensed into the poetry of Scotland. The inspiration and the doctrine of both productions is the equality of man. I have seen the declaration of independence very severely criticized not only for its diction but for its politics too. I have seen fifty thousand critics in a line criticizing it with shot and shell and musketry. What of it? When their criticism ended, the flag born of the Declaration, streamed above their speechless cannon, and from every star in its brilliant constellation there shone upon the world the gospel of the political new testament. "All men are created equal;" "A man's a man for a' that."

The personal independence of Burns gives masculine strength and moral vigor to his poetry. It is this personal trait which his countrymen try to imitate. To his immortal honor be it said he founded his independence on his ability to earn his bread by the labor of his hands. In the dedication of his poems to the noble men and gentlemen of the Caledonian Hunt, he is careful to say that this is done only as a tribute of regard, and not as a bid for patronage or favors. In that dedication he uses these words, "I was bred to the plough, and am independent." Here he reverses the former doctrine that independence consisted in the ability to live on the labor of other men. He proclaimed the higher law of independence the ability to live on his own labor. "I was bred to the plough and am independent."

I complain of the amiable injustice which is continually done to the independent spirit of Robert Burns. Loving admirers mourn the hardness of his lot, and reproach his country for neglecting him. "Scotland," they say, "lavish of posthumous honors to her great son, permitted him to live in poverty, and die in debt. He asked for bread and he received a stone." Nothing can be more untrue than that; and they honor not Burns who say it. He never asked for bread; he earned it. Nor did he ever in his lifetime receive a stone at the hands of Scotland. Scotland would not have dared to offer him help either in alms or pensions. He was too proud to accept the patronage of anybody. The brave heart which in life would accept no man's pity, is humiliated with gratuitous pity after death. It is because Burns bore his cross alone, and asked no other man to carry it for him that we honor him to-day. There is no moral majesty in

this world which has not at some time or other worn its crown of thorn. Would Burns be a royal king to-day had he not had the double coronation of poverty and pain? The man who makes the journey of life in a palace-car, who worships from a gilt edged prayer-book, and drinks his eucharistic wine from a golden chalice, presents a dim and dingy appearance at St. Peter's gate, because the soul of him has never been polished by the friction of adversity and struggle. He gets inside, of course, for I believe that every one gets inside, but having no moral mark upon him, no sign of the cross, he mixes with the plebeian multitude and is not recognized in celestial "society."

In like manner the Holy Willies croak harsh judgment against Burns for his indulgence in unworthy appetites. I do not say that Burns was guiltless altogether, but I do say that his vices have been exaggerated, as was necessary, in order to show them in glaring contrast with the moral grandeur of his virtues. For much of this exaggeration the poet is himself responsible. In his moments of remorse, he accuses himself in terms of self-reproach so eloquently keen that many even of his admirers have taken him at his word. In the course of my life, it has been my happiness to number among my intimate friends many members of the Episcopal Church, and I have often been amused to hear them denounce themselves as "miserable sinners," when I knew that their lives were pure, beneficent, and virtuous, that they were not sinners at all, and that there was a house and lot reserved for every one of them in the New Jerusalem. I will not take them at their word, neither will I accept Burns's plea of guilty, extorted from him under the duress of sorrow and remorse.

One day last summer, I stood with a friend gazing on the statue of Schiller in Lincoln park. My friend was one of the Pharisees of art, and he pointed out several defects in the statue. I endured his criticisms very well so long as we looked the great poet squarely in the face, but when the critic took me behind the statue, and showed me that the wrinkle in the back of the coat was not according to the canons of high art, I lost all patience and told him that his criticism had dropped into mere backbiting, and that I must beg pardon of Schiller for listening to censorious remarks about him uttered behind his back. So the Pharisees of poetry stand behind the image of Burns and show us wrinkles in his character. There are people who will not allow you to praise the splendor of the full moon. If you do so they will say that it is well for the moon that only one side of her is visible to man, and that if we could see the other side we might find that her ladyship was no better than she ought to be.

Although much of Burns lived in the earthy fog where inferior mortals dwell, his forehead was always



above the clouds. There, radiant in the sun, it reflected upon earth the melodious poetry of heaven. Near my home is a church, with a tall spire on it crowned with a gilded cross. That cross is the first thing visible to me in the early morning when everything beneath it is wrapped in fog. I can see it gleaming in the sunshine before I can see anything else in the city, several seconds indeed before I can see the sun. There are the church, and the priest, and the congregation enveloped in the fogs of a Gothic superstition, but above them all I see blazing in the sun the symbol of self-sacrifice and in the brightness of it I can read a promise that the mist and the fog shall be dissolved into the ether of eternal truth. So above the clouds I see the forehead of Robert Burns lighted by the forgiving beams of heaven and there I see the golden promise that the mists and fogs which have so long obscured his greatness will all be cleared away.

#### BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M.D.

Part XX.

#### HEALTH AND DISEASE. (Continued.)

The Latin proverb regarding the beatitude of a "healthy mind in a healthy body," expresses, in a certain sense, a condition as well as an ideal, since mental disease, and even mental afflictions and disturbances, never fail to react on the health of the physical organism.

The violence of that reaction increases with the preponderance of mental over physical vigor, and consequently is noticed in civilized men more frequently than in savages; but there is no doubt that mental causes of bodily disorders assert themselves even in animals. Grief, for instance, arrests the process of secretion, and thus interferes with the gastric functions, in quadrupeds and birds as evidently as in emotional individuals of our own species. Cows deprived of their calves will often refuse to eat, till actual starvation gradually revives their appetite. A captive lynx, which had been comfortably caged and provided with an abundance of tempting food, annoyed my Swiss landlord by its desperate attempt to break the iron bars of its prison, and for three days and three nights hardly ever ceased its efforts to discover a loophole of escape. But after ascertaining the futility of that hope, the prisoner coiled himself up in his hay-couch and refused to touch another morsel of food, though meat, eggs, and finally a live rabbit, were fastened in a corner of his cage, not more than an inch from his sullenly glaring eyes. He died a week after, without ever leaving his hay-bed, and a *post mortem* examination failed to reveal any trace of external injuries, though his stomach looked as shrivelled as an old

leather purse. Cross bills, and several species of paroquets, can be kept only pairwise and pine away from the hour they have been separated from their mates. Nature seems to revoke the doom of life, whenever the balance of weal and woe preponderates too heavily on the side of sorrow, and stock-breeders well know that solitary and ill-treated animals are specially liable to the contagion of epidemic diseases. The curious phenomenon of suddenly vitiated humors, as a consequence of exasperating mental emotions, explains the envenomed saliva of tortured or enraged animals; and there may be a good deal of truth in the popular theory which ascribes the origin of hydrophobia to be the fury of an intolerably ill-used cur—a poor watch-dog, for instance, that has for weeks been kept chained to a noisome kennel. It is a suggestive fact that *rabies* (*Hunds-wuth*, i. e., "dog-rage," as the Germans call it) is extremely rare in Turkey, where dogs are simply neglected, but almost never chained, and that mad wolves are most frequently seen, not where wolves are most abundant, but where they are most frequently chased and worried by packs of hounds.

Under the influence of irritant mental emotion, nursing animals refuse to suckle their young, either because the secretions of the lacteal glands have been arrested, or because instinct warns the mother that a sudden vitiation of her milk threatens to injure her young.

A similar phenomenon, though rarely accompanied by the same warnings of instinct, has been frequently observed in abnormal mental conditions of human nurses. Dr. A. T. Combe, in his treatise on "The Management of Infancy," mentions the case of a woman whose husband "fell into a quarrel with a soldier billeted in his house, and was set upon by the latter with his drawn sabre. His wife at first trembled from fear and terror, and then suddenly threw herself between the combatants, wrested the sabre from the soldier's hand, broke it into pieces and threw it away. During the tumult, some neighbors came in and separated the men. While in this state of strong excitement the mother took up her child from the cradle, where it lay sleeping, and in the most perfect health, never having had a moment's illness, she gave it the breast, and in so doing sealed its fate. In a few minutes the infant left off sucking, became restless, panted, and sank dead upon its mother's bosom. The physician, who was instantly called in, found the child lying in the cradle, as if asleep, and with its features undisturbed; but all his resources were fruitless. It was irrevocably gone."

That rage can produce an almost instant lethal effect, even upon a most vigorous organism, was strikingly illustrated in the well-attested adventure of Governor Pacheco of California, who, on one of his hunting-ex-



peditions in the foothills of the Sierra Nevada, came upon a big grizzly bear that had taken refuge upon an isolated rock, and by the time of the hunter's arrival, had been completely surrounded by a pack of howling dogs. Seeing the brute's predicament, the hunter galloped back to a valley where he had left a number of herders gathering in their cattle, and with the co-operation of those assistants, soon managed to put two lariats around the waist of the monster, which, at the approach of its new assailants, had risen up, like a man, on its hind legs. Two horsemen laid hold of the end of each lariat, and in spite of his desperate resistance, the bear was pulled down from his vantage-ground, and dragged along, growling and snapping, toward the valley, where Mr. Pacheco intended to chain it up in a barn of his mother's farm. At the gate of that barn a big Spanish wolf-dog rushed out and managed to fetch the grizzly a snap-bite in the rump—a mere flea-bite for a brute of that size, but on turning fiercely to smash his aggressor, the bear found himself checked by the double lariat and in the next moment broke down dead—killed by rage as effectually as by a rifle-ball, or rather by a score of balls, for a pound of lead does not always prove a sufficient dose for a big grizzly. The lariats had caught him around the waist and could not have possibly choked him to death, and only a minute before entering the farm-gate he had demonstrated his vigor by tearing a big piece of bark from a tough old live-oak tree at the roadside.

A curiously analogous case was a few years ago reported from Temesvar in southern Hungary, where a hot-headed young peasant had been arrested on suspicion of complicity in the murder of a landed proprietor. The defendant, however, would have been released for want of positive evidence, if it had not been for the testimony of a witness, who (probably in the hope of earning the offered reward) affirmed under oath that the accused had left his home with a shotgun on the night of the murder. In spite of a pathetic denial, the defendant was then formally indicted, but on being removed from the court-house, came face to face with his accuser, and at once sprang forward with a rush that knocked over the prison-guards, and in the next moment would have had the perjurer by the throat, if his (the defendant's) own brother had not siezed him in the nick of time and flung him back by main force, but withal with an ease which rather surprised him till he found that the silent man in his arms was a corpse.

The English anatomist Hunter was so well aware of his liability to suffer from the effects of mental emotion that he avoided controversies with an extreme, though, as the event proved, not superfluous, caution, and often abruptly left a room for fear of be-

ing betrayed into an angry altercation. "Heart-disease," he used to say, "hangs over my head like a sword suspended by a hair, and every scoundrel has it in his power to cut that hair." In an assembly of his colleagues the doctor's statements were once positively, and rather roughly, contradicted by another physician, and Dr. Hunter at once turned deadly pale and staggered from the room, as if reeling under a heavy blow. The controversy, it seems, had been purely professional, but the doctor was taken sick with fainting fits and a short while after succumbed to the long-dreaded complication.

Terror, and even disappointment, often produce equally fatal effects. History, since the time of Isocrates, abounds with the records of stout men being struck dead by the sudden announcement of dreadful events. During the Russian campaign against the mountain-tribes of the Caucasus, the wife of a captive highlander was carried dead from the tent of General Grabbe, whose clemency she had vainly implored in behalf of her doomed husband; and only a few weeks ago New York papers mentioned the case of a poor emigrant, a South-Italian, who had saved the earnings of years of toil to bring his family to America and who was informed that he must go back under the provisions of the "Pauper Act." When he had realized the full import of the interpreter's communication he sat down as in a stupor, and soon after had to be removed to a hospital, where he died that same night. Such effects of disappointment are not always confined to persons of an emotional disposition. In my Georgia summer-home I was once called to the bedside of a poor mountaineer whom I had for years known as a self-possessed and rather phlegmatic man, but who was suddenly taken sick on learning that his landowners refused to renew his tenure to a little farm which his sons had reclaimed from the wilderness of a mountain-forest. "He complained of a headache about half an hour after Billy came back empty-handed," his wife told me, "and I'm afraid he has *lost his hold on life*, the way he looks and acts." Her husband never spoke again, and died in his sleep a few days after.

There is no doubt that grief shortens life, and that the alleged effect of our modern steeple-chase sort of business habits result from worry, rather than from overwork. Successful work rarely kills. "It is almost miraculous," the German traveler Gerstaecker wrote from California, "what an amount of fatigues a man can undergo with impunity as long as he is braced up by the consciousness of playing a winning game. Two of my tent-mates went to work on a 'gulch'-claim a month ago and finding profits slack, generally came home in the middle of the afternoon growling terribly about the excessive heat and getting fits of the blues



in anticipation of a physical collapse if this sort of bake-oven weather should last much longer. Last week they struck a nugget-stratum, 'panning out' from six to sixteen dollars' worth of coarse grain-gold per hour, and ever since they have been at work eighteen hours a day, singing and joking, digesting the toughest grub with ease, and laughing at hardship, though the heat has since grown worse, so much so, indeed, that some of our less successful neighbors have quit work in despair, and wondering if my partners were born in Hades to stand such weather day after day. And still stranger: the six hours pause are by no means so many hours of rest; on coming home there is cooking to do, and washing and mending, leaving hardly four hours for sleep, half of which is often fooled away with the construction of 'castles in the air.' But at the first glimpse of daylight they are impatiently ready to go at it again, and after a fearful day's work with mattocks and crowbars, I saw little Fritz get up in the middle of the night and swear considerably because the bright streak in the East turned out to be not the dawn, but only a late moon peeping over the ridge of the eastern Sierras."

Fruitless work, on the other hand, saps the mental fountains of energy; and men kept at work by a mere sense of duty or the dogged "never give up," resolution of a strong mind, often break down with a suddenness that is apt to be ascribed to a neglect of hygienic precautions, but which, too often, is the less remediable consequence of a moral collapse under a burden of crushing care.

#### DREAMS, SLEEP, AND CONSCIOUSNESS.

A PSYCHOLOGICAL STUDY BY GEORGE M. GOULD, M. D.

(Concluded.)

##### IX. GENERAL CHARACTERISTICS OF DREAMS.

Most of my dreams are of actions. I do things, or try to do them, or am the object of the acts of others. Very few are contemplative, intellectual, or purely sensational. This shows that the mimic stage of dreamland, in a general way, is the same as that of the waking life. Consciousness is most habitually employed in the direction of the activities of the motor centres.\* Historical man even more than at present has been an active, not a contemplative, reflective, or receptive being. The mimic exercise of motor function by the dreaming consciousness produces for me two types of dreams: first, the clogged, heavy, and impeded, in which the feet are stuck fast or weigh a thousand pounds, etc. I think this is a familiar sort of dream, and finds its *rationale* in the resisted efforts of the organ of consciousness to arouse the subordinate sleeping centres of motion. In the dream we do not know why we cannot lift the feet, or reach the succoring hand; we are only intensely conscious that the foot or hand are sluggish and numb—as in truth they are. Consciousness sends its mandate

\* A dreaming dog presents a suggestive picture:—the paws jerk, the lids quiver, the jaws snap, he barks little short spasmodic barks, or he growls and whines. I picture the consciousness-centre intensely active, the chase in his dream is wild. The subordinate centres are partially aroused by the overflow from the higher centre, but not normally functional until such a pitch of excitement is reached that, in the culmination of the dream, all and several are awakened."

to the Rolandic centres, but there is no response. Hence the genesis of the so-called "nightmare." Resisted and unresponsive effort arouses fear and further effort. Bodily malposition may also serve to beget the endeavor to arouse subordinate motor centres. A co-related fact may be bracketed here. A familiar dream experience consists in dropping or stepping off some high place, or falling through the air, and with the drop, or the crash, we awake in fright. If our conception of cerebral action is correct, this would find its explanation in the loss of the habitual checks and control of the lower sense-centres. When awake, consciousness exercises control of the muscles and saves the body from falling. When asleep, the command is also given, but the lower centres and their muscles do not obey—and we fall. Not only this, but the danger of falling, the predicament we are in, is aroused by the fact that the inhibition and checks of sense-control do not exist in sleep to keep us away from heights and dangerous places. Consciousness records the *efforts* of will we make, as if they were registered in action, and it sees no difference between willed act and motor fact.

The second class of movement, or action-dreams, is the reverse of the first, and consists in movements not only unencumbered, but of transcendent ease. The glorious pleasure of supernatural power and action is indescribable. I often awake quivering with the intense pleasure of free, swift, and confident activity. Sometimes it is a sort of skating or gliding across countless miles of country or ocean; sometimes it is a giant-like striding from mountain-top to top; sometimes the perfect eagle swoop through the blue of space, effortless, and superb! May this be thought of as either a normal play of the organ of consciousness with its own forces, or as a healthy mimic outflow of innervation along the usual routes to the subordinate centres of motion, which, in comparative exhaustion, absorb the inflow without themselves being aroused to an active outflow of innervation?

It has been a source of wonder, that in the classical baschisch dream of the De Quincey type, an eternity of time is compressed into a moment, and, to the rioting consciousness, that moment is indistinguishable from the actual detailed facts of a thousand years. In the same way, space broadens, and the body itself, or the room it dwells in, becomes wide as the starlit night. Personality may even seem to double, and thus again enlarge the boundaries and possibilities of experience. Is not all this also a corollary of the anatomical and physiological conditions of the organ of consciousness? We have memories of waking life only as things and events transpire that memory records: but the evolution of a tree, or a world, or a life, is a *slow* process. But, to the mind, in the condensation of thought, it becomes an instantaneous thing. We can think the evolution of a solar system in the flash of an instant. It is *fact* that draws this out to ages. In sleep, let us again repeat, facts and all their qualities are lost in the loss of the lower centres of sensation and motion. Hence the mental review of time-stretches and the multitudinously-linked chain of facts becomes temporarily as much of a reality to the dreaming consciousness as if the law of causality were truly operative. It does not suspect that its phantasmagoria is not real, because, so far as itself is concerned, it *is* real. We must remember that consciousness is never directly touched by reality. It only receives the echoes and representatives of reality. In the baschisch-dream it is not suspected that the thousand years are not actually passing. It is only when we awake and compare the dream with the slow and droning march of causally-linked things that we recognize that the thousand years were condensed by the wizard of consciousness. Memory is in truth only the memory of psychical happenings, and as these, essentially, are almost, if not absolutely, timeless and spaceless, it follows that the passage of a cycle of material events may be swept through the bour-glass constriction of consciousness in a brief moment. Or again, we may in dreams wish or will to do a thousand things in a flooding instant of boundless desire, that a



world and an eternity could not realize under the conditions of causality. But it is apparent that to the dreaming consciousness this crowded rush of desires and willings is as real, apparently as subject to time and its laws, as if the lower centres were not asleep. It is these lower centres that give to it the term of comparison and enslave it in the treadmill of reality. In sleep the noble slave is temporarily set free: sleep seals the eye-lids of its masters, the spirit rises out of the chains that bind consciousness to reality, and the divine slave at once comes into possession of the universe as its absolute plaything, whilst over its fancy hovers the superb child's hallucination that the paltry nothings of its imagination are real suns and stars and worlds, the actual march of cosmic event and the pomps of eternal time! Its mimic play and lightest wishes instantaneously become incontrovertible and unquestioned facts. Had they reasoned of the world of dreamland, those philosophers that resolved the world, with its laws of time and space and causality, into mentality, would have been wiser than they were.

A pronounced characteristic of all dreams is their great lack of logical correspondence with the laws of the real world. In dreaming this is not recognized. The most intolerable absurdity seems perfectly natural. One face or person fades into another, we take hundred-mile steps, we do things outrageously *mal-à-propos*, without a suspicion of their incongruity. I gather from this that the waking activity of the organ of consciousness is regulated and governed by the multiform stimuli of the subordinate centres. In a certain sense and in the light of evolution, the organ of consciousness is an outgrowth and product of these subordinates. In the waking life their messages must continually be sent to the higher unifying centre. The product of their combined influence must be inhibitory and regulative. In this way there is produced the sanity, the correspondence with reality, that marks the orderly, mirror-like function of our waking consciousness. The essential characteristic of sleep is the non-activity of the subordinates, and hence the unregulated and fantastic mimic life of the organ, acting without data or content. The restraining checks and the completing fullness of the influences of the lower centres, are removed, and hence the inevitable result is inconsequentiality, illogicality. Another reason for this fantasticalness lies in the fact that even in waking the work of consciousness consists in no exclusive occupation with one set of stimuli. Strictly speaking there is no habit of consciousness. It must remain at the instant service of any or many orders and kinds of control, whether of sensation, memory, or various motive. When removed from the inhibition and control of reality, consciousness could not be supposed to show an order and logic of succession it had never had in real life.

Depriving it also of content or *material* would all the more emphasize its whimsicality. In dreams the sense of the incongruous or the ludicrous is with me of the extremest rarity. The humorous is the incongruous, and this is a failure of correspondence with the real. If the comparison with reality be excluded, then, though every dream be incongruity itself, recognition of the fact by the dreaming consciousness is infallibly excluded. I have sometimes been awakened by my own laughter at some apparently highly absurd thing, but when awake I have been just as much disgusted at myself to find the plainly-remembered dream in reality contained no vestige of the humorous.

#### X. DIFFERENCES BETWEEN THE DREAMING AND THE WAKING CONSCIOUSNESS.

I preserve in my dreams most of my stronger æsthetic, deeper moral, and passionate feelings or emotions, but with noteworthy differences. These differences may perhaps be summed up by saying that in dreamland the factitious elements and refinements of a superposed civilization fall away, leaving in relief the nude realism of primitive and disingenuous personality. For example,

the occasional prevalence of generative instincts might alone convert one to the doctrine of biology covered by the adage, *omne vivum ex ovo*. Assuredly, restraint and scruples concerning such matters are not known in dreamland. The chastest do not blush there. I rarely have any care for clothes or nudity there, and the *bizarrie* of my dream-plights in this respect often amuses my waking consciousness. In one way I think it remarkably confirmative of my general thought that, as the savageness of the brute and the selfishness of the animal come out in intoxication, it is not so in dreamland. Rage, destructiveness, tyranny, delight in power—these are almost never present. The reason is that the power-producing, or motor centres are asleep. Neither is hypocrisy known in dreamland. Falsehood is largely a product of civilization. There are few of us that are not forced into subterfuge, peccadillo, and even cowardly lies, by the conventionalities and disguised warfare of civilized life. Consciousness is in truth ethical and unselfish: it holds the balance between the selfish greeds of the lower centres. In sleep these last are forced to stop their wranglings and their competition for place and recognition, and it therefore never occurs to dream-consciousness to lie or deceive for selfish reasons. Morally, dreamland is a brighter country than our noisier world. If dreams tell us anything about our essential personality, they argue against our innate depravity. I think I am more kind and careful of others' rights in dreamland than in awake-land. In the last country I have to endure many grievous burnings of my feelings in the matter of cruelty to animals. In dreamland my indignation at it is constantly aroused. I may see nothing absurd in a fireman compelling his beautiful horse to pull the fire-engine by a three-tined fork thrust through the animal's nose, but I awake, boiling with rage and vowing to arouse society to a recognition of the shame of it all. Unless feelings of profound pity, contempt, indignation, etc., are aroused, I find that in dreamland I am, not immoral, but unmoral. Unless a lie hurts somebody in a way to arouse fervidness of feeling, I do not greatly hate the lie or the liar. But if the lie produce injustice or wrong I hate that, and the author of it, though not because of the falsehood.

In my dreams I have even killed others with utterly no compunction or regret, but with satisfaction that I had righted some wrong, or vindicated somebody, or succored the weak. I remark always the most unquestioned and enthusiastic acceptance of the fundamental passions of pity, love, justice, indignation at wrong, etc. These great forces of mental life have stamped their impress so deeply into the structure of the organ of consciousness that, even when the stimulus of fact is absent, when the subordinate centres are hushed in sleep, and sensation is non-existent, there still remains the play of nervous activity along the old lines, and with sufficient intensity to light up again the emotions that once blazed forth at the touch of the real.

As to the reasoning power, I find my dream-consciousness wholly devoid of it. I have heard of mathematicians working out incomplete problems in their sleep, or the key to some scientific mystery or financial vexation reaching one at that time. To say the least such cases must be very exceptional. Judgment, weighing complex probabilities, induction by close lines of logic from manifold details to a single cause or principle,—all this presupposes a convergence of myriad nerve-currents from many and dissociated points, the focalization of many sensations, memories, past and present, etc., etc. To think is to ponder, and weighing is the essential characteristic of all judgment. But the dreaming consciousness is without judgment. It is always the incongruous with which it deals. Its workshop turns out good work only if good material is furnished it. It is fancy, imagination, feeling, sentiment, but never ratiocination. The subordinate centres that furnish it with material, that give it legality, and hold it to reality, are sleeping. The factory is without "raw material," and the bands go holidaying.



In matters æsthetic my dreamland is a revelation to me, and in this respect alone, frequently transcends reality. I have never taken a dose of *tannabie indica* or other cerebral stimulant. I have no need of such things. Released from the bonds of the actual, my imagination wanders in dreamland among supersensual delights and basks in the light that never was on sea or shore. I note this peculiar fact; in my enjoyment of dreamland-beauty there is an element of fervor, an implication of the feelings, that I can but barely remember, not experience, as I stand before the most beautiful of real things. May the reason of this be, that in addition to the real being always far from perfect, there is in no waking human life utter oblivion of its painful and tragical elements, past or present. Every sense has been outraged, every centre of the brain has suffered, and even whilst these may send their most exultant peans of major joy to the higher centre of consciousness, there must ever intermingle the minor notes and discords of want, dissatisfaction, and pain, that keep its harmony from being perfect. But when all sources of such discords are hushed, when these lower centres are asleep, the freed consciousness can revel in joyousness under the fleeting illusion that its mimic life is real.

#### XI. PREPONDERANCE OF VISUAL SENSATIONS.

Motion and vision are the two great factors of mental life, and it is suggestive to find that those animals, that, so long as possessing motion, keep their eyes and the intelligence that coexists with vision and motility, when they attach themselves permanently to one spot, the eyes and intelligence are lost. Parasites are usually eyeless, and vegetable parasites are without chlorophyll. The whole wretched order of microbes, moulds, and fungi, the curse of the physician and of the world, are parasitical, and without chlorophyll. The insane, the idiotic, the weak-minded, the epileptic, have, relatively speaking, very subnormal vision, and a defective ocular mechanism.

Above the motor element, the predominant characteristic of my dreams is that they are made up of things seen. I do not remember ever to have dreamed of an odor, pleasant or foul, though often dreaming of perfumed or malodorous things. In the same way, though I have dreamed of eating, I preserved no remembrance of impressions of taste. The apple I ate—I cannot now tell if it were sweet or sour. Tactile sensation is somewhat frequently a component of dream-phenomena, but generally only in conjunction with another sensation or feeling that smoothes it. If I am struck by another, the feeling or pain, if existent, is at once lost in some psychical emotion, of anger, or fear, etc. Pain cannot enter dreamland because the centres that feel pain are asleep. I never remember to have remarked in dreams that a thing was exceptionally and peculiarly smooth, or hard, or sticky, etc. I shrink less from touching a foul thing in dreams than in real life. I cannot remember ever to have been cold or oppressively warm in dreamland. If I shiver from cold or am too near a fire I note especially the motion, or sight, or perhaps the feeling of the shivering instead of the cold, and I remember the danger, or the vision of the fire, not the pain. All of this is consonant with the re-representative function of consciousness. The senses are represented in it only when awake. As to hearing, few or none of my dreams contain any distinct records of sounds. I can express it no better than to say that the results of hearing are manifest but not the sounds themselves. I speak and am spoken to, and act accordingly, but I am never able to recall any *timbre* of voice, any inflection, emphasis, or pitch that causes the voice to be, at the time, thought of as remarkable, or that gave its noteworthy, if it had any, enough vividness to project it across the bridge of awaking into a work-day memory. When awake, nothing so fires me with uncontrollable emotion as the music of Beethoven, Wagner, or Franz. I cannot remember ever to have heard music in dreamland.

But how different it is with the sense of vision! Everything

not motion—and that is largely so—is a thing seen. How empty and destitute must be the dreamland of the congenitally-blind! To me vision gives dreamland all its beauty and most of its interest. It could hardly be otherwise, since the same is true of the waking consciousness. Intellect, indeed, is almost entirely formed of visual factors: every component of what we call psychic life and civilization is largely the product of vision. Language and the letters of the alphabet themselves are the records of things seen. Vision is at once the most metaphysical of real, and the most real of metaphysical things. Astride a ray of light Puck passes in a flash from matter to mind. The library of the soul, memory, is a picture-gallery. An absolute monochromatic world would force the spirit to suicide. Had all eyes been absolutely color-blind Psyche would not have been born. It is the associate fibres from and to the visual centre that binds together the world of mind and the world of matter, and that loans life its value, and crowns it with its one unalloyed delight. We sleep at night when the eyes, the great awakeners, ministers, and producers of intellect and life, are least utilizable. Few people, and only those of stolid and blunted sensibilities can sleep in the light, even with what darkness closed lids give. It is interesting to see how all living forms, both animal and vegetable, dwindle to wretched caricatures of life, when, eyeless and colorless, they keep up existence in caves and in the sea-depths.\*

#### XII. CHARACTER, THE SOUL, AND CONSCIOUSNESS.

In a superb story of Gautier, a lover by his power of magic is able to lull into a death-like trance the being of his successful rival. This lover then steals the body of the young husband, his rival, and, leaving his own soul in the entranced body to care for it, the passionate lover plans to trick the faithful wife. The conception is a proof of genius! Think of it! The lover stole a body that thereby he might steal a love, that, in the absence of his own body, was of course not carnal. On the part of the husband one meets a multitude of questions, principal of which would perhaps be, How far would he have been cheated had the thief been successful? On the part of the lady strange trials and mystic queries also arise. Remember that if only her husband's soul were absent, there were present every trick of motion, play of expression, *timbre* of voice, nay, every habit of mind and body that is in any way controlled by the laws of corporeal and nervous organization, or by heredity. What *would* be different? Both lovers would be equally kind, lovable, and loving. Both would express their inner feeling by the same acts and by the same mechanism. Some one said that the Yankee worked badly where soul and body touched. Would you suppose the thieving lover's soul could not avoid an awkwardness in handling the mental centres, and through them, the body, he had stolen? I bring the idea forward here to illustrate firstly, how far "character" is a matter of flesh and nervous organization; and, secondly, how little there is in the so-called "soul" but an impersonal force. If two of your best friends could change "souls," would you ever find it out? I confess that after a rigid exclusion of the elements of character that necessarily inhere in the action of the body and of all subordinate motor and sensory centres, I find, if anything be left, it is a very impalpable and impersonal somewhat. Now this is precisely what sleep does. If, therefore, the dreaming consciousness could have its photograph taken, it would have no recognizable or distinguishing trait of expression. We should never know our disembodied friends. Dream-personality has no individuality. And thus, through physiological psychology, we catch a glimpse of the profound truth that, at heart, we are all the same. One common unity lives in us all, and our jealousies, bickerings, differences, and hates, are but the expression of the accidents of body; our love and kindness, the expression of the one

\* See, Packard, "On Certain Factors of Evolution," *the American Naturalist*, Sept. 1888.



life that feeds all our lives. Dream-philosophy teaches religion and sympathy. There is nothing more noble, or more philosophically demanded of us all than, to one another, simple kindness. It is at once the most human and the most divine thing in this sorry world.

It is evident that a cluster of nerve-cells in the cortex of the brain whose function it is to receive stimuli and answer the same with messages, *e. g.*, to a muscle to contract,—it is clear, that such a mechanically acting centre is not the "soul," or even a part of it. A paralyzed man is just so much a man spiritually and mentally as before the atheromatous blood-vessel drowned the Rolandic convolution. Paralyze every bodily muscle and the fact remains essentially the same. But it is not so with the frontal lobes of the brain. Render them functionless by trauma, disease, or the hypnotic enslaver,—and consciousness, mind, soul, give no evidences of existence. Slice off the frontal portions of the brain of the poor pigeon, and life, power, habit continue, but not what it had of mind. We may be thankful that to the vivisectionist it is impossible and useless to slice from behind forwards and leave only the living organ of consciousness. (With the present "scientific" *Zeitgeist* there would be more disembodied rabbit, guinea-pig, pigeon, and even human criminal souls, wandering about, seeking re-incarnation, than Hindoo mystic ever dreamed of!)—But this is almost exactly what sleep does,—harmlessly, and lovingly, however, and it is of the greatest interest to see what a world is left after all peripheral stimulation and subordinate centres are stilled into temporary death by its kind hand. Dreams show us how great is the world, how shadowy a thing is the essential *ego*. The soul, deprived of the body, seems quite as unreal and phantom-like as any of Charon's passengers. It is so profoundly dependent upon the crude senses and experience, upon memory and motion to give it regulation, order, and reality. As, one after another, sleep strips us of these things, that at best, are but supplies of soul—so paler and ever thinner, ever less individual, grows the *ego*. Picture-making in its last analysis is not strictly psychical, and yet a visionless world would be absolutely a soulless world. Dream-consciousness is consciousness without adventitious aids, physical props, content, and checks,—it is consciousness, *per se*, it is, in truth, a fluttering memory of a memory of past experiences; its life a mimic play; its phantasmal existence is upborne upon the ghostly wings of past sorrows and joys, and tied to reality by the tenuous thread of a momentarily interrupted sensation. Its master, the body, suddenly tugs at the silken cord, and from freedom it swiftly descends and slips into the yoke of reality, attentive to the thousand demands of its imperious and all-precious sovereign!

## CORRESPONDENCE.

### THE PHILOSOPHICAL CLUB OF MONTREAL.

"YOUR NOTHING IS MY ALL,"—*Frank*.

(Addressed to a Small Circle who love Wisdom for its own Sake.)

"Observe those dreamers!" Thus I heard one say.

"Philosophers, and artists, poets—all:

Spurn we their vague 'abstractions'! I would call

Them 'nothings,' read by light of sober day.

The heroes of the world are valiant men,

Doers, who hold the plow or wield the sword,

Or wear the crown as master, king, or lord."

I, sighing mournfully, replied: "O, when

Shall the 'realities' be understood?

Are not the instruments of use or pain

First fashioned in deep contemplative mood

Within the thinker's ever-active brain?

Prosper the dreamer for the nation's weal;

Before him shall the coming ages kneel."

Dear Friends of Philosophy:—

You have expressed a wish to know something of the "small circle who love wisdom for its own sake," to whom the above son-

net, which appeared in the *Toronto Week*, is addressed. The club originated in this wise:

One afternoon when the crimson flow of the setting sun threw a halo across the waters of the St. Lawrence river, and the wind was asleep so that not a leaf stirred, and the very air seemed filled with a quiet pensiveness as if mother Nature herself were dreaming,—three friends met. For the sake of convenience let us call them Progress, Mystic, and Metaphor. I have said that these three were "friends"; by which you will understand that they did not feel it necessary to "make conversation," nor even to talk at all unless when the spirit moved them so to do. For some time nothing was said. Progress broke the silence, saying:

"How I should like to paint this scene!" Metaphor immediately looked up with a startled air, as if the thread of some sweet reverie had been suddenly tugged by something or somebody, and replied:

"I was just wondering what it all means—what everything means! How are we here, why are we at all, where are we going? I cannot help thinking about these things;—is it useless? If there were some great, humble minds—wise, sincere, fearless—made to do their thinking aloud—I could sit and listen—always. I have heard something about a Concord School. Supposing we all go and find out what the philosophers are teaching there?"

"Supposing, instead," exclaimed Mystic, with impulsive, decisive tone, "that we start a society here!"

"It is surely a sadly solemn thing," went on Metaphor, meditatively, "that the true interests of life—its deep problems—are rarely discussed—ignored, one might say—by what is called 'society.'"

"True," rejoined Progress, "one who takes life seriously, and talks on 'deep subjects' is in these days called a 'crank.'"

"Let us start a philosophical club," reiterated Mystic, with increased emphasis. "Let us begin at once! We can meet at each other's houses. And let us invite such of our acquaintances as might be interested in studying with us. I suggest names, one, two, three, four, five, a dozen or so."

The dozen or so were invited, but all declined with thanks. Some had "no time," others "no talent for that sort of thing, you know," others preferred "a useful practical study."

So Progress, Mystic, and Metaphor were thrown back upon themselves,—happily, with spirits undaunted.

"What book shall we take up first?" inquired Mystic. "Were we to make a thorough study of Kant alone, this winter (1887), we might next winter compare him with philosophers of our own time."

"I am anxious to study Kant," said Metaphor; "certain beautiful sayings of his often come to me—simple, yet sublime truths, with a fine touch of poetry about them—quite different from the involved sentences and prosy reasoning of his ordinary style."

"For example?" queried Mystic. "'The starry sky above me, and the moral law within me,—are two things which fill my soul with ever-increasing reverence,'" answered Metaphor. "And here is another. 'Once I held a swallow in my hand, and gazed into its eyes; and it was as if I saw into heaven.'"

After that the three friends met weekly and read and discussed Kant. Take a look at the trio at their first meeting! A bright parlor, a cheery fire, a table on which stands a vase or two filled with roses; a few photographs of celebrated authors, meet the glance, and there are several books for reference. At one side of the table sits Progress, at another Mystic, at a third Metaphor, the fourth has a representation only in a large dictionary.

But after a few weeks the club boasts of a new member. Him we shall name Commentator. Whenever anyone remembered having read something somewhere, Commentator could always lay his finger on the place. The new member proved to be a



most useful one. Kant occupied us all that winter. Edward Caird's work, and Watson's 'Kant and his English Critics' were of great service to us at this time.

In 1888, we took as a text-book, James Sully's Psychology. This work was read aloud, each member taking his turn. Special points were discussed. After reading a section of the text-book, a portion of the evening (meetings are from eight till ten) was devoted to Fichte, Schelling, or other philosopher following Kant.

The last reunion of 1888 was held in the afternoon, in a garden a short distance from the city. The seats were placed under a cluster of trees. The front view was of the mighty St. Lawrence—the broad expanse of whose waters is of itself enough to lead the mind away into the boundless realm of Philosophy. For a moment, here, imagination went to the *Academia* of Plato.

Schwegler's History of Philosophy is our handbook this winter. The first meeting was held on Monday, November 5, when a glance was taken at the period previous to Plato. Next, Plato was discussed; and then the Phædo—in connection with which selections were read from Wordsworth and Addison, etc. In January we opened with Aristotle—the master of those who know—according to Dante; and our evening this week was devoted to the Ethics.

Changes have taken place in our club. Progress is abroad, but keeps pace with our studies. An able student in Edinburgh (a near relative of the late Dr. Andrew Thompson) has signified a desire to become our "Scottish Correspondent." Several new members have been in a regular attendance, showing that there is a steadily increasing interest in the society.

I would say to the solitary worker therefore, Be encouraged by our experience. Look round among your acquaintances, and be not dismayed if you have but a trio or a quartette to start with. If you be not always a learner, you may sometimes be a teacher. Be assured that there is a helpful stimulus in working along with others,—a chance to get the angles rubbed off, and the sympathies broadened. *Tecum habita, et noris quam sit tibi curia supellex.* Our prospective Scottish correspondent writes to ask the questions:—

1. What are the rules of your Club?
2. What is the fee to become a member?
3. Who is the president?

The following is the reply:—

1. There is no rule.
2. There is no fee.
3. As to the presiding officer,—Where the MacGregor sits, there is the head of the table!

MONTREAL, Jan. 1889.

MARY MORGAN (*Gowan Len*).

### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXX.

VEXATIONS.

The year began well in every respect. Woodcock and snipe had betaken themselves to their homes before the sportsmen had donned their boots, and the March-daffodils had really bloomed in March. The moon, between its first and last quarter, smiled every evening with wry, distorted mouth. At Court the Princess had turned her mind to search after lost manuscripts with the Professor, and in the city an uncommon inclination to quaff the punch of the fragrant woodruff-plant was perceptible among the citizens and tempted

them to daring undertakings. Even quiet heads were infected by the intoxication of the season; straw and paper ruled supreme. All the world wore not only hats but also caps of straw; all the world occupied themselves with speculations and new investments. The house of Hahn was in the ascendant. The orders were so numerous that they could not be executed. In all the corners of the house sat girls, sewing straw plaits together; the smell of the brimstone in the street and neighboring gardens was insupportable. In the evenings Mr. Hummel sat on his upturned boat, like Napoleon at St. Helena, a vanquished man. With angry contempt he regarded the tumult of humanity. Repeatedly did his acquaintances call upon him to launch into the great activity of the time, to become a member of some stock-company, to found a bank, dig for coal, or smelt iron. He rejected all these proposals. When he went into his idle workshops, where he was only occupied in a struggle with moths, his book-keeper ventured to make a remark as to the possible future fashions in Parisian hats; he laughed demoniacally and replied:

"I cannot indulge in any speculation as to the covering that people will require when these wild projects cease; but if you wish to know what will be the next fashion, I will inform you. People will wear pitch-caps. I wonder that you are still at your desk. Why do you not do like others of your colleagues, who spend their time in wine-shops?"

"Mr. Hummel, my means do not allow of that," replied the depressed man.

"Your means!" cried Hummel; "who asks after that now? Lucifer-matches are as good as ready money. The street-porters discount bills and give one another their likenesses. Why do you not live like the book-keeper Knips over there? When I bought an orange for my wife of the Italian, I saw him sitting in the back room with a bottle of iced champagne. Why should you not put yourself on ice in this hot weather? These are nothing but ruinous, hare-brained projects; it is a Sodom and Gomorrah; the straw fire burns, but it will come to a frightful end."

Mr. Hummel closed his office and walked in the twilight into the park, where he wandered up and down on the frontiers of his territory like a spirit. He was awakened from his meditations by the wild barking of his brindle favorite, who rushed up to a bench in a shady part of the park, and savagely seized the boots and trousers of a man sitting there. Hummel approached nearer; a small man and a young woman hastily separated. Hummel was sufficiently man of the world not to let himself be seen, and he hastened back to his garden and continued his walk in wild strides.

\* Translation copyrighted.



"I knew it; I always said so; I have given a warning all along. Poor devil!"

Then he walked angrily towards the great beech-tree on his own premises and forgot the supper hour, so that his wife had to call him twice from the garden. When he was sitting at table also he looked as dark as a thunder-cloud, and expressed such a deep contempt for human nature that the ladies soon became silent. Laura made another effort to lead the conversation to the wife of the Burgomaster, who had shown great respect for Hummel whenever she passed by, but he broke out with the terrible words:

"She is no better than the rest of womankind."

"That is enough, Hummel," exclaimed his wife; "this conduct is very unpleasant, and I must beg of you not to indulge so far in your ill-temper as to let it deprive you of a proper judgment of the worth of women. I can forgive much, but never an insult to the nobleness of human nature."

"Away with you and your noble human nature," replied Hummel, rising from the table, and pushing back his chair; he then rushed vehemently into the next room, where, in the dusk, he continued pacing angrily to and fro, for he was much disturbed about Gabriel. Certainly the social position of this man was not exalted; he was not a relation, not a householder, not even a citizen. Accordingly, Mr. Hummel revolved in his mind whether an interference in the secret feelings of this man became him. He did not come to a decision without a struggle, but he could not silence the voice which sounded in the corner of his heart in favor of Gabriel.

Meanwhile, the ladies were sitting at their disturbed repast. Laura looked down gloomily; such scenes were not new to her, and they became more painful. The mother was in great consternation at this anger against the world of femininity, and sank beneath the waves of stormy thoughts. At last she came to the conviction that Hummel was jealous. That was very ludicrous, and there certainly was no cause for such a feeling, but the vagaries of men were incalculable. The comic actor had come the day before at her invitation, and he had been very entertaining; he had enjoyed the wine and dinner, and on taking leave had kissed her hand with a true theatrical expression. Was it possible that this expression had produced the mischief? Mrs. Hummel began to pace up and down, looking in the mirror in passing by, and determined, like a valiant housewife, to hold forth to her husband this very evening on his folly.

"Go up stairs Laura," she said, softly, to her daughter, "I wish to speak to your father alone."

Laura silently took the candle and carried it to her private table. She placed herself at the window and looked toward the neighbor's house, where the Doc-

tor's lamp still glimmered through the curtains. She wrung her hands, and exclaimed:

"Away, away from here; that is the only way to save myself and him."

Meanwhile, Mrs. Hummel had the supper removed, and, mustering courage for the impending encounter, at last entered the room in which Mr. Hummel was still blustering about.

"Henry," she began solemnly, "are you yet in a state of mind to consider calmly the circumstances which have robbed you of all composure?"

"No," cried Hummel, throwing a boot at the door.

"I know the cause of your anger," continued Mrs. Hummel, looking modestly down. "No explanation is necessary for that. It is possible that he may sometimes have ventured more than was necessary in looks and small remarks; but he is amiable and full of talent, and we must make allowances for his vocation."

"He is a miserable fop," cried Mr. Hummel, hurling his second boot from him.

"That is not true," cried Mrs. Hummel, warmly. "But if it were, Henry—even if you could judge him utterly unworthy,—do not forget that pride and a feeling of duty dwell in the heart of your wife, and that your suspicion is an insult to these protecting genii."

"She is a coquettish, silly flirt," replied Hummel, dragging his slippers from under his bed.

Mrs. Hummel started back horrified.

"Your wife has not deserved this treatment. You tread under foot what should be holy to you. Come to your senses, I conjure you; your jealousy approaches to madness."

"I jealous of such a person!" cried Hummel, contemptuously, vehemently knocking the ashes from his pipe. "Then I must indeed be out of my mind. Leave me in peace with all this nonsense."

Mrs. Hummel seized her pocket-handkerchief and began to sob:

"He has so often amused me; he tells anecdotes as I never heard any one in my life; but if he excites you, so that you lose your reason and insult your wife by calling her names, I have made many sacrifices during our wedded life, and he also must fall on the altar of domestic peace. Accept it, he shall never again be invited."

"Who is he?" asked Hummel.

"Who but the comedian?"

"Who is she?"

"Mrs. Hummel gave him a look which showed indubitably that she herself was the lady.

"Is it possible," exclaimed Hummel in astonishment, "that is how the land lies? Why do you want to slaughter your theatrical buffoon on the altar of domestic peace? Rather put something slaughtered before him; that would be more agreeable to his culti-



vated palate. Be composed, Philippine. You are often unintelligible in your speeches, and you make too much ado; you spin your theatrical webs in your head, and you have your humors and confused ideas in general; but for the rest, you are my worthy wife, of whom no evil shall be thought either by myself or others. Now do not thwart me, for I have determined to write him a letter."

While Mrs. Hummel, stupefied, seated herself on the sofa, and considered whether she should be mortified or tranquilized by her husband's praise, and whether she had been under a foolish delusion, or that her Henry's madness had taken the new form of *bonhomie*, Mr. Hummel wrote as follows:—

"My Dear Gabriel,—Yesterday, on the 17th of this month, at 7.45 in the evening, I saw, on bench No. 4, on the common, Dorothy from over the way sitting with Knips junior. This is for warning and further consideration. I am ready to act according to your orders. Straw, Gabriel!—Your affectionate

H. HUMMEL.

By the same post a letter flew from Laura to Ilse in the Pavilion. The faithful soul wrote sorrowfully. The little quarrels of the house and the neighborhood vexed her more than was necessary. Of the Doctor she saw little, and what was the bitterest grief for her, she had given away the last song; she had nothing more to send to the Doctor, and wished to continue the correspondence without inclosures. Ilse was greatly surprised by one sentence, the sense of which was not very clear to her: "I have obtained permission from Miss Jeannette to give lessons in her institution. I will no longer be a useless bread eater. Since I have lost your society all is cold and desolate about me. My only comfort is, that I at least am prepared to fly into foreign parts, and there collect the grains which I need for the prolongation of my life."

"Where is my husband?" asked Ilse, of her maid.

"The Professor has gone to her Highness, the Princess."

"Call Gabriel."

"He has received bad news, and is sitting in his room."

Immediately afterwards Gabriel entered, with a distressed countenance.

"What has happened?" asked Ilse, alarmed.

"It is my own affair only," replied Gabriel, with quivering voice; "it is no good news that this letter has brought to me."

He took out of his pocket Hummel's crumpled letter, and turning away, leaned his head against the window-sill.

"Poor Gabriel!" exclaimed Ilse. "But there may still be some explanation to justify the girl."

"I thank you for your confidence in her, Mrs.

Werner," replied Gabriel, solemnly, "but this letter informs me of my misfortune. He who has written to me is true as gold. But I knew all, before I had received it. She did not answer my last letter; she has not sent me the pocket-book; and yesterday evening, when I went out and was thinking of her, a lark flew towards me and sang a song that made me certain of it."

"That is folly, Gabriel. You ought not to let your judgment be influenced because a bird accidentally occasioned you sorrowful thoughts."

"It was evident, Mrs. Werner," replied Gabriel, sorrowfully. "Just as the lark flew up and I was thinking of Dorothy, the words which I heard as a child and which I have not heard since, occurred to me. It is no superstition, and I can repeat the sentence to you:

"Lark, dear lark, high o'er the smoke,  
What new thing have you to tell me?"

This thought came to me, and then I heard, as distinctly as if some one was whispering the answer in my ear:

"Two lovers sat near a hazel-bush,  
The third was crying and moaning;  
The two pass the threshold of Hymen's house,  
The third sits alone and mourns a spouse."

Gabriel took out his pocket-handkerchief.

"That was a certain foreboding that Dorothy had been false to me."

"Gabriel, I fear she was always fickle-minded," exclaimed Ilse.

"She has a heart like a bird," said Gabriel, apologetically. "She is not a serious person, and it is her nature to be friendly with all. That I knew; but her gaiety, light-heartedness, and pleasant jesting made her dear to me. It was a misfortune for me and her that I was obliged to leave her just when she began to favor me and discourage others who were showing her attention. For I know that the book-keeper had long had his eyes upon her, and had prospects which would enable him to marry her; and that was a better provision than I could give her."

"Something must be done about this," said Ilse. "Do you want to go back to the city to ascertain how matters stand? My husband will immediately give you permission. Perhaps it is not so bad after all."

"For me it is as bad as it can be, Mrs. Werner. If you will have the kindness to look after Dorothy, to see that she is not made unhappy, I will thank you from my heart. I shall never see her again. If one loves any one, one should not leave them alone when they are in temptation."

Ilse endeavored to comfort him, but Gabriel's words went to her heart.

"The third sits alone," she repeated, in a tone of sorrow.

*To be continued.*



## BOOK REVIEWS.

OCCASIONAL THOUGHTS OF HORACE SEEVER. Boston: 1888. Published by J. P. Mendum, Investigator Office.

The above little book is the fruit of fifty years of active and enthusiastic literary labor in the cause of truth and progress. Mr. Seever, the editor of the Boston Investigator, represents the standpoint of opposition to Religion. To him, Religion "depends upon credulity," (p. 81). "All systems of faith and religion are got up by man to impose on his fellows." We have often pointed out the one-sidedness of this view of religion and we wish to repeat it here. However, it is to be borne in mind that free-thought had to suffer much persecution before it gained recognition, and we can easily understand how a man who bore the brunt of desperate battles, still sees his enemy in his theological adversary and cannot judge of him impartially.

HIMMEL UND ERDE. Populäre illustrierte Monatsschrift. Berlin: Heft 1-4.

The first four numbers of *Himmel und Erde* are at hand. The new journal exceeds all expectation. It is filled with highly interesting essays on astronomical subjects, treated in a popular style. The many illustrations are well executed and greatly increase the value of the journal.

The society *Urania* of Berlin, which was instituted for the purpose of "Extending the Enjoyment derived from the Study of the Natural Sciences," are the publishers of *Himmel und Erde*. Dr. Wilhelm Meyer, the editor, has procured the assistance of the best astronomical authorities of all countries, those of our own not excepted. The leading essay of the first number is by Prof. J. V. Schiaparelli, "Upon the Phenomena observed on the Surface of the Planet Mars." Professor Förster, of the Royal Observatory of Berlin, and Dr. Meyer set forth the aims of the *Urania*. In the second number of the periodical, the editor begins a series of articles in which he explains in a popular style the structure of the Universe. The journal begins with promise.

## NOTES.

Mr. J. M. Wheeler has completed a "Biographical Dictionary of Freethinkers" which will be published in a few days by the *Freethinker*, London, England, 28 Stonecutter Street.

*Wide Awake* will have in its next number an essay on "The Survival of Ancient Superstitions" in the popular style suited for its bright little readers.

In the *Atlantic Monthly* of February, 1889, Philip G. Hubert, speaks about the New Talking-Machine:

"I really see no reason, says he, why the newspaper of the future should not come to the subscriber in the shape of a phonogram. And think what a musical critic might be able to do for his public! He might give them whole *arias* from an opera or movements from a symphony, by way of proof or illustration."

M. Alfred Binet has written an interesting preface to the American edition of his treatise, "The Psychic Life of Micro-Organisms." Among many important positions taken, our readers will be interested in the opposition of the author to a theory advanced by the distinguished English scientist, Mr. George J. Romanes. Mr. Romanes, in his well known work upon Mental Evolution, assigns the first appearance of the various psychical and intellectual faculties to different stages or periods in the scale of zoological development. Thus, memory begins with the Echinoderms, reason with the higher Crustaceans, and the secondary instincts with insects and spiders. M. Binet characterizes the classification of Mr. Romanes as laborious and anomalous. The criticisms of the French psychologist rests not only upon the authority of many eminent naturalists, but also upon experimental results reached by himself. The work of M. Binet will be published by The Open Court Publishing Company during the present week.

We publish, in the present number, a letter from Mary Morgan (Gowan Lea), the poetess, telling of the origin of the Philosophical Club of Montreal, its scope, and work. It is interesting as typical of the way in which organizations that have later on become great and influential, have originated. We instance the Nineteenth Century Club of New York, founded by Courtland Palmer, and the Metaphysical Club of Boston whose soul and life was the gifted and much lamented daughter of Mrs. Julia Ward Howe, Mrs. Anagnos.

The Chase-Breckinridge Copyright Bill has passed the Senate and is now before the House of Representatives. It is a matter of national honor and pride that this subject be settled, and opposition, on the ground of defects in the bill can only come from confirmed Philistines and morbid Chauvinists. It is a compromise measure and the outcome of years of labor. American authors will be freed from competition with stolen goods. It will make American books cheaper by opening to them the broad home market now supplied with inferior foreign works. American books will have a chance to reach the American people who now read many worthless books by foreign authors reprinted in rival editions, solely because they can be had for nothing. It will take from our country the stigma of being the only great nation in the world which despoils the foreign author. From a purely ethical standpoint our people, one and all, should support it; because it is just and honorable.

## PAMPHLETS ON LIVING QUESTIONS.

Truths for the Times. By Francis Ellingwood Abbot. "The great inspiration of the Nineteenth Century is faith in the ideal unities as possible in fact." Price, 10 cents.

Fear of the Living God. By O. B. Frothingham. Price, 5 cents.

Lecture on the Bible. By Rev. Charles Voysey. Price, 10 cents.

Christian Propagandism. By Francis Ellingwood Abbot. Price, 10 cents.

God in the Constitution. By Rev. Arthur B. Bradford. Price, 10 cents.

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The Present Heaven. By O. B. Frothingham. Price, 5 cents.

On the Vision of Heaven. By Prof. Francis W. Newman. Price, 5 cents.

A Study of Religion. By Francis Ellingwood Abbot. Price, 10 cents.

The Battle of Syracuse. Two essays by James Freeman Clarke and Francis Ellingwood Abbot. Price, 10 cents.

The Sympathy of Religions. By Thomas Wentworth Higginson. Enlarged edition, 38 pages. Price, 5 cents.

Evolution and Religion. By John Fiske. Price, 5 cents.

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Entered at the Chicago Post-Office as Second-Class Matter.

OFFICE, 169-175 LA SALLE STREET.

No. 76. Vol. II.—50.

CHICAGO, FEBRUARY 7, 1889.

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## TRUTH AND FICTION.

BY DR. M. WILHELM MEYER, OF BERLIN.

Translated from the German by JUKK.

Setting—a landscape in Spain. A balmy summer night. Beams of moon-light shimmering through the trees. "I had not long been walking back and forth, when I saw a sudden flash of light, that cast a golden radiance upon the trees and coppice far about. I glanced up, with a start, and beheld in the air a ball of fire, that seemed to hover in the distant space beyond the moon, and slowly to sink towards the spot where I was standing.... The fire-ball, which constantly increased in size as it approached, burst close above me with a loud report, and in its stead I saw a wondrously beautiful woman upon a chariot of blazing carbuncles, drawn by two fire-colored, winged dragons. Round about her, upon a light silver-tinged cloud, fluttered a host of Salamanders, in the shape of winged Cupids, of supernatural beauty. Her wavy tresses were like ringlets of sun-beams, her wings like flames of fire, her body whiter than driven snow in sun-light, and the roseate colors of morn played fantastically upon her cheeks and forehead."

The above remarkable observation was made by that intrepid hero, the youthful Don Sylvio of Rosalva, for whose veracity I have the competent authority of our patriarchal poet, Wieland. For my part, and in all honesty, I doubt not a moment that our youthful cavalier of fairy-land distinctly saw with his eyes the phenomenon above described.

But let me be permitted to add what I take the meaning of "eyes" in this case, to be. These flashing, presumptuous things, that from both sides of the nose seem to project out into the wide universe, and making the journey from star to star in a second of time, fancy they are able to pass from one eternity to another—these eyes into whose shadowy depths one often looks as into an abyss, unfathomable, unlimited, leading to bounds beyond the created world and to the soul of man no longer part of earthly things—these eyes, I say, so far as we can grasp them, are withal no more than windows in a house wherein some man may possibly live and whence he may look forth into the universe. If nobody stood behind the windows, they of themselves would certainly see nothing of the

world. The man behind our windows of eyes is the mind. The impressions that are formed upon the retina, through the medium of the crystalline lens, are telegraphed by the optic nerves to the mind, as perfectly as circumstances allow, and the latter, if so disposed, forms from the dispatches he has separately received, an intelligible and connected whole. As a rule, and unless taken up with some particular whim, the mind from the very nature of its office is constantly bent upon arranging everything telegraphed to it into intelligible interdependence, and never stops until it finds that everything is properly in its place. If something is telegraphed, perchance, that at first sight appears absurd and of which the mind has never in its life heard before and consequently cannot unravel, it endeavors in such cases to attain peace of soul by autocratically asserting its authority as a court of last appeal and maintaining simply that the despatches have been tampered with; whereupon it commissions that imperious, flattering, cosmopolitan damsel, Imagination, to rectify the reports at her pleasure. Thus does the mind willfully hoodwink itself, for the purpose merely of upholding, at any price and with an eye to pious comfort, a conception of the world which it has previously formed, and which it has fashioned and elaborated with loving care. And so it comes that the poor corporeal eyes have nothing whatever to say, and more than that, that we do not know at all exactly what they really do see, or how the world really is made.

Among the different organs of sense no night-watch has, as a rule, been introduced. When the time to sleep comes, the telegraphists stationed at ears, eyes, and remaining senses, naturally grow weary. The shutters are closed and we go to sleep. Even the court of last resort, that thing so hard to define, which, having to give it a name, we have called the mind, condescends on such occasions to share this rest. But, sometimes, in the middle of the night, it occurs to it to get up again—not, however, to assert itself as a stern executive clothed with authority, but to seek amusement as a private citizen in a world of its own making, unobserved by its slumbering subordinates in office:—we dream. We see, hear, and feel, in such circumstances, exactly the same as if the administrative machinery of the human body politic were in complete and conso-



nant movement. Here, the inward man acts entirely upon his own score.

Sometimes, though, matters go further. The ambitious personage at the head of affairs, who just in the night-time feels himself especially at liberty and so hits upon all sorts of strange ideas, often takes it into his head to rouse a number of his deputies and press them into service to carry out his knavish projects. The engineers that work the arms and legs at sovereign bidding, have to resume their duties. They are accustomed, since time out of mind, to carry out with slavish conscientiousness the work imposed upon them; and now they put the human machine into motion after the old fashion. We walk in our sleep, in pathways that we build in fancy; and while tripping about in the moon-light upon the roofs of houses, we fancy perchance we are hastening to a longed for rendezvous in a garden of oriental beauty. So long as the timorous and troublesomely pedantic inspectors stationed behind the ears and eyes, otherwise ready to telegraph every danger that threatens, are fast asleep, so long can we act as we please. Beware, however, of waking the man who is walking in his sleep. If you shout at him, the timorous inspector first starts up. This gentleman is at once seized with consternation at the noise, tears open the shutters, the telegraphists rush to their instruments and at once a hundred dispatches fly over the lines, announcing the dangerous situation at the seat of sovereign authority. As a consequence of the universal dismay, the mind is also struck with terror. "Mercy on us! What shall we do?" It telegraphs in every direction; and from every direction comes the answer: "Tumble from the roof, as people always do when they are in your fix." And he tumbles.

The case may occur too, that at times when the other functionaries are sleeping, the telegraphists behind eyes and ears may be half-awake, and though in an uncertain and stupefied condition, yet mechanically perform their duties. In which case incomplete dispatches arrive at headquarters and the man at the head of affairs fills them out as he pleases; and endeavoring, of course, to adjust matters as speedily as possible, gladly and involuntarily, as it were, accepts any suggestions that another person, completely awake, bids him senses telegraph him in explanation of what he has perceived. This condition of affairs is called hypnotic sleep. Here, the connection between the sensory instruments and the mind is only partly broken, and the electric battery is, so to say, poorly filled. We give the hypnotized subject a lemon. The image of the lemon will be formed of course upon the retina of the open eye. But the senses do nothing more than send an unintelligible telegram to the mind that the person has an article in his hand of indefinite color and indefinite character. The situation disturbs the un-

sleeping mind, which never likes to be aware of the presence of a thing without knowing its qualities, which might indeed be dangerous to life. Hereupon a bystander says to our subject: "That is a beautiful, sweet apple you have there, my friend; why do you not eat it?" This announcement is immediately and gladly accepted by the perturbed mind. Of course! Plainly, that is an apple! And our subject takes a bite of it. The gustatory nerves receive a tremendous shock. But here too the connection with the mind is imperfect. The dispatch contains merely information as to a sensation—whether it is sweet or sour, it does not say. But the mind at once completes the dispatch in accordance with the idea previously transmitted to it. To it the object is a sweet apple, and the sour lemon is devoured with an expression of the most appreciative enjoyment.

If, now, the person were suddenly aroused from the hypnotic sleep, he would at once have the sour taste in his mouth, and would spit out, in disgust, what was left of the lemon. For now the dispatch from the gustatory nerves arrives in the mind in an un mutilated condition, and the latter is enabled to form its own judgment, which says that the lemon is sour.

This explanation of the hypnotic state appears to me the simplest, and that which most fully harmonizes with the experiences which a person in the normal state has with his own mind. It is a question of existence with him to find the quickest possible explanation for things about him. To this end he employs the testimony of his external senses. The connection between the mind and the senses, however, works poorly during hypnotic sleep. This induces a feeling of insecurity, and the hypnotized subject clings unconditionally to the explanations which another person in whom he has confidence makes by word or gesture. Thence also the power of the hypnotizer, which is only effective with believing subjects, who from the start recognize that the operator is intellectually their superior.

I believe, too, that there actually are people who see spirits with their open eyes and when really awake; presupposing, of course, that the persons in question are previously versed in spirit-lore or are at least inclined to believe that under certain circumstances supernatural beings can come down to us—whether directly from heaven or from the fourth dimension of space, it is immaterial.

It is in the night. From the moon-beams shining through the blinds the room is filled with a dim light wherein the eye, I mean the bodily eye, can see nothing with distinctness. In this case, therefore, it is the fault of the outer organ that the dispatches arrive at headquarters in an incomplete form and, frequently, unfit for purposes of explanation. A condition of mind,



consequently, quite similar to that of persons hypnotized, can easily occur in the present instance. Here the sense of disquiet and insecurity noticeable, is caused by the defective perceptive capacity of the outer organs in the flickering twilight, and in the state of hypnotism it is caused by the defective transmission of distinctly received impressions resulting from the poor conductive capacity of the telegraphic connections between the senses and the mind. In both cases imagination has to lend its assistance, to satisfy, by a trick of self-deception, the crying demand for causal interdependence.

A light draft of air is passing through the spacious halls of a mansion-house, wherein one is walking about alone, listening to the re-echoing foot steps, feeling here and there, and glancing about in timorous uncertainty. The wind touches us as with a thousand fingers of swiftly passing, bodiless beings. Suddenly something stirs behind the door of the next room. The person had not been looking directly at the spot, but he had noticed that a shining white body had slowly and noiselessly passed back of the doorway. Terrified, he quickly turns towards it. If he had been looking in that direction a moment before, he would have seen that it was a white curtain which had been lifted away from the window for a moment by the wind, and that a streak of moon-light had flitted lightly through. The curtain has fallen again now. But in the short space of time that the timorous observer takes to direct his eyes squarely upon the spot, a great mass of inferences has been arrived at. "That is a ghost. I saw it almost directly. I shall get a full view of it in a moment now." The imagination at once comes into active play, and while the corporeal eye really sees nothing, the imaginative faculty rapidly creates the image to harmonize with the generally accepted idea of how such things ought to be. The spiritual eye steps into the place of the bodily eye, which refuses all participation in the affair, and the subject sees perfectly well with the former everything that the circumstances of the situation demand of it.

The confounding of the spiritual with the corporeal eye can be so completely effected withal, that a person deceived in this manner will take in perfect faith the most sacred oaths upon having seen with his own eyes everything that his imagination has thus conjured up before him. This is why I believe everybody, upon word, when they tell me they have seen a ghost.

And so—to credit the reliable account of Wieland—did it happen to the youthful Don Sylvio, in whose ideas of the universe there existed fairies and salamanders just as surely as there do kings and presidents in our own. He was disturbed with the thought of how he was to find his beloved princess, who had been transfigured into a butterfly, and this thought engaged his

whole attention. Suddenly, there appeared before his eyes a brilliant fire-ball as big as the moon, which flooded the landscape far about him with light of spectral transplendency. The marvelous phenomenon speeds earthward in rapid flight, and right above the head of the youthful cavalier, who half from delight and half from fear stands spell-bound by, the fire-ball bursts with fearful detonation; the glowing fragments fly like burning carbuncles through the air, and silver cloudlets tinged by the light of the moon take their place.

Thus far the description may correspond perfectly to reality. But now comes the element of fiction, whereby the strange phenomenon, so mysteriously appearing, sought and found an appropriate place in the young observer's ideas of cosmic order. That radiant object, soaring towards him from transmundane parts, could be nothing if not the intervention of a higher power in his fortune and course of life. The fire-ball vanished as quickly as it had appeared; the eye of the body ceased to furnish further material. But the imagination, too powerfully aroused by the gorgeous and unfamiliar spectacle, causes the inward eye to continue seeing what is further pleasant and acceptable to it. The change of rôle is effected so quickly, that the observer takes no note of it. The fairy is thus a natural metamorphosis of the fire-ball, and the rest follows of itself.

My readers may interpose the objection, perhaps, that I have occupied myself unnecessarily at length with the interpretation of a poetical fancy of Wieland. On the contrary.

I believe, indeed, that every creation of fancy receives its primal impulse from a materially real event; that the faculty of imagination is to be compared to a keg of powder, which lies inert and ineffective until a spark of real fire falls into it. The liberating force may be ever so feeble in comparison with the tremendous effect so suddenly produced; and yet without that impulse this effect could never have resulted.

The fanciful vision of the fire-ball and the fairy form emerging from it, we must assume to have arisen from some actual occurrence; and the material truth of the picture represented up to the point where the transcendental lady appears, the phenomena accompanying it, the serpentine flames curling about the bursting meteorite, the glowing body set with carbuncles that falls from it, the white clouds that encompass it, unequivocally pronounce that the poet had witnessed a magnificent phenomenon of this kind himself, and that a similar train of thought to that above sketched had led him to the development of the psychological processes imputed to his hero:—a scene painted with such exquisite marks of observative talent as to appear to us almost natural.



But I propose to go still further, and shall undertake to show that when brought face to face with extraordinary phenomena, suddenly appearing, we all of us belong to the category of fairy-knights and ghost-seers; and that we see events, for the time unexplainable, just as the spiritual eye pleases to see them.

On the fifth of December, 1880, at twenty-nine minutes after seven in the evening, a fire-ball swept across the city of Geneva, illuminating the entire adjacent district, for about two seconds, with a gorgeous bluish light. I chanced to be in a narrow street at the time and was only able to see the bright glare. Our machinist at the observatory was more fortunate. I reposed full confidence in his reports, for I had reason to assume that he suffered more from paroxysms in the legs than from illusions in the head. He told me that the fire ball appeared about three times smaller than the moon and had fallen perpendicularly towards the western horizon, where, before reaching the same, it vanished, without bursting apart and without making any noise.

If similar reports had been attainable from observers who had followed the course of the phenomenon at a distance of some miles from the city, I would have been in a position to fix the true path of the fire-ball, independent of our terrestrial position, and to ascertain in what direction from the wide regions of universal space it had descended, and at what height it had passed over us. I accordingly published in the *Journal de Genève* a request to that effect, and received in answer scores of letters. Among them were three, whose writers thought it incumbent upon them to preface their account with the highest moral assurances of their credibility, and who all saw the meteor fall to the ground at a short distance from where they were standing, but every one of them at a place which lay miles away from the stations of the other two observers.

The first observer had seen the meteor burst just above the trees skirting the banks of the lake, in a suburb of Geneva. The fragments had shot through the branches of the trees and fallen upon the pavement below, where they broke in pieces, with a clatter and amid a shower of sparks. The people had run towards the spot, but could discover nothing. My reporter was looking from a window of his dwelling-house, some twenty yards away from the scene, and had observed the occurrence without possibility of deception. I subsequently examined the place described, saw nothing, however, to raise suspicion, and could find no black marks whatsoever upon the pavement. The second observer had seen the meteor, at the end of its course, fall between the spot where he was standing and the chateau of the Chevalier de Beaumont, in Collonge—a village situated at the foot of

the Salève, about a league from Geneva. The meteor must certainly have fallen in the garden there. Here too all investigation was fruitless. My third informant, finally, contended with the pertinacity of a Galileo, in opposition to all other reports, that the fire-ball had plunged into the lake, by Chillon. The famous castle laved by the waters of Lemán, that formed the brilliant theme of Byron's immortal poem, had loomed forth from the darkness, at that moment, in phantomlike grandeur and truly spectral splendence. The distant snow covered peaks of Savoy, and the dancing waters beneath, seemed flooded in the blue light with an indescribable and magical radiance. Then the meteor had plunged straight downward before the shimmering, light-flooded mountains; the latter were plainly visible behind the flaming ball, and a moment later it had vanished in the hissing waters. And then all was darkness again.

It was easily proven, in contradiction of the descriptions sketched above, that all three witnesses of the phenomenon were mistaken. For as no detonation was reported—although the meteor was visible from its brilliant glare within a range of at least twenty miles—it never could have fallen to the earth: a noiseless fall of a meteor of equal brilliancy never occurred, and besides, from physical reasons, it is impossible.

Although I was unable, from the extremely contradictory reports given, to fix a definite path as the course of the meteor, yet it is undoubted that the fire-ball swept over Geneva at a distance of several leagues, and probably never came nearer to the earth. The dazzling light into which the fire-ball suddenly blazed, and its course which led almost perpendicularly to the horizon, had at once convinced all who witnessed the phenomenon that the meteor was in their immediate vicinity and was descending towards them. All the faculties of the mind, and particularly the ever ready and helpful faculty of imagination, had been brought into active and rapid play by the extraordinary sight, and upon the sudden and unexpected disappearance of the brilliant object could not be brought immediately to a state of rest. That which they expected to see a moment later, they in fact did see quite distinctly—of course, with the inner eye only, the corporeal eye suddenly ceasing to furnish further accounts. Only after the occurrence had come, in consonance with our ideas, to a proper termination—in other words, when the meteor had fallen to the pavement, in the garden, or in the lake—did the spiritual eye discontinue to make its observations. The deception was so complete that one observer had distinctly heard the rattling of the fragments upon the side-walk, and another the hissing of the water when the meteor struck the lake. Imagination had in each case occasioned the entire deception.



From this and various other circumstances the apparent result inferable is, that the functions of the mind are subject to a kind of law of inertia, by virtue of which the mind is to be brought only with difficulty into a definite direction; yet when once forced into activity by a powerful impulse, it is unable immediately to stop upon the cessation of the originating impulse, but continues, for a while, undisturbed in its progress, until finally the friction from the evident inconsistency of appearances become too great.

### JIM THE INVENTOR.

BY WHEELBARROW.

My friend Jim Short is a mechanic; and what is more, he is a genius in mechanics. Had he been simply a mechanic he might have prospered and made money, but being a genius he has accumulated nothing but glory, on which he will receive no dividends in this world. They will all go to the multitudinous corporation known as Homo Brothers and Co. It is a surprise to Jim that this practical epoch does not use genius well. It has neither time nor money to waste on theoretical men. After a long and weary search, Jim Short has discovered the principle of perpetual motion, and he has invented a machine to utilize it for the abolition of hard work. It needs only a few more wheels and pulleys to make it perfect, and then the social problem will be solved; we shall need no exercise, but play. It unites the virtues of the philosopher's stone, the elixir of life, and the Balm of Gilead. It is the supreme panacea which, like Aaron's rod, shall swallow all the rest.

They give no credit at the patent office, and they refuse to issue patents on ideal inventions. They will not accept promissory plans, models, and specifications latent in the inventor's brain. They insist on realities made of wood, and leather, and iron. This is the prosy reason why Jim has not received a patent for his promise of "perpetual motion." His models contain cogs, wheels, concentrics, eccentrics, and pulleys enough for twenty patents, but because they lack just two trifling elements, a lever and a fulcrum, the department absurdly refuses a patent, and what is worse, the government declines to furnish genius with money enough to supply the missing powers. The people refuse faith, and the government refuses money. That Jim's manifold patterns do not work is no fault of his, but of the heedless government which declines to render him substantial aid. His efforts being for the benefit of all the people, Jim thinks that the government should subsidize his genius or at least encourage it with a pension, that he may pursue his experiments above the cankering fear of poverty. Morse received a subsidy for a promise of quick motion, and why should not Jim receive a like stimulus for his

promise of perpetual motion? He wants a few immediate assets and there are none in the assurance that he shall be renowned in after ages like Watt and Stephenson.

Jim's definition of his perpetual motion machine is this: he describes it as a mechanical contrivance that needs no food and works for ever. It is the one great miracle under the sun. The skeptical crowd laugh kindly at poor Jim as a visionary in mechanical economy. They easily detect the flaw in his logic, but with childish credulity they pin their own faith to inventors in political economy more visionary than Jim. His theory is a panacea that works in all emergencies and cures everything; so is theirs. Each of them declares that he has discovered the secret of perpetual motion, and as soon as he can supply a lever and a fulcrum to his machine he will abolish every form of social disease. Jim is not alone in fairy-land. The woods there are full of dreamers fantastical as he.

Forty-five years ago, there was a social reformer in England, who found "perpetual motion" in the spade. His theory was to abolish the plow and divide England up into four-acre farms, to be cultivated by the spade alone. This would give employment to everybody, and poverty would cease to be. He was correct, because it is very plain that to cultivate all England with the spade would require the muscle of all her people. He put more than a million dollars into his experiment. He bought large tracts of land, divided it up into four-acre farms, armed his "freeholders" with spades, and set them to work. The scheme failed, and the failure broke his heart. In his efforts to find the missing lever, fulcrum, or whatever it was that his machine wanted, he became insane, and died at last in the lunatic asylum.

A very popular "perpetual motion" machine is the panacea known as the single tax on land-values, which is to abolish poverty. In fact the proprietary name of it stamped upon the bottles, is "Anti-Poverty." All other preparations for abolishing poverty are counterfeit. Another inventor, of the type and quality of Jim, assures me that he has discovered "perpetual motion" in State Socialism, where all of us are to be absorbed into that ethereal Nirvana which is called "government," wherein we are to live and move and have our being. Another tells me that he has found "perpetual motion" in the principle of individualism, or anarchy, where government is unknown because unnecessary; where every man is his own policeman, clubbing himself over the head whenever he does wrong and continuously taking himself into custody. Another assures me that he has found the great principle in mutual banking and an unlimited supply of paper ten-dollar pieces. When every man has a pocket full of bank stock, Utopia becomes a geographical fact. When



we can draw on the bank for whatever amount we need by simply depositing a philosopher's stone in the safe, "perpetual motion" becomes a crystallized reality. I have a friend, an editor of a newspaper, who writes me that he has found "perpetual motion" in a graduated income tax by which every man is to be fined in proportion to his prosperity, the fines to go to the unprosperous. He does not know that this was one of the resources of the French Republic, a hundred years ago, by which "equality" was to be established among all the people.

Jim, the inventor, is not alone in his theories of "perpetual motion." He has the company of hundreds, who believe that they have solved the riddle of ages, and that their special inventions, if they can only get them patented, will bring the millennium in.

#### AXIOMS THE BASIS OF MATHEMATICS.

BY DR. EDWARD BROOKS, OF PHILADELPHIA.

In an interesting discussion by the editor of THE OPEN COURT it is stated that "mathematics is unfortunately constructed on axioms," which gives to it "an air of mysteriousness," and led Schopenhauer to declare that "the whole science, being based upon non-proven truths, remains non-proven." Of course any one who is familiar with the spirit of modern philosophical thought, will readily understand the reasoning that leads to this conclusion; but it is a position so different from the usually accepted one that it always invites discussion. My own conception of the subject points to a different conclusion, and I throw together a few paragraphs in the line of this thought.

I begin by saying that there are some things of which we may say, *they exist, they are*. The universe is; both monism and dualism assume the existence of a something, or an aggregation of things, which we call the Universe. So also it is assumed that thought is, that a something (brain or mind) which thinks is, that the laws and principles of science are. All thought is based on the assumption that some things exist, that there is a certainty of their existence, and also that there is a certainty that we know they exist.

Moreover, there are existences which are not material, as space, time, feeling, thought, etc. The paper upon which THE OPEN COURT is printed exists, it has length, breadth and thickness; length, breadth and thickness are possible only in space, therefore space also exists. Mr. Gladstone is eighty years of age, the time he has lived is an actuality and cannot be destroyed. This time is possible only in the great fact of Time of which the eighty years are a part; hence there is an existence which we call Time. The paper of THE OPEN COURT not only exists, but the ideas and truths which it contains, also have an existence; hence

thought and the great truths which it discovers or evolves, are actual existences in the universe.

And again, some things not only exist, but their existence is a necessity. Nothing can overthrow or destroy their existence. They exist independently of all conditions, and are subject to no contingencies. They are an essential part of the universe, without which there could be no known or conceivable universe. Space exists as an essential condition for the existence of matter, but space would continue to exist even were all matter destroyed. I am aware that the truth of the statements of this paragraph will be questioned, but though they are not necessary to my argument, I let them stand as indicating the line of my thought.

Now some of the above statements are true, or else the statements of their opposites are true; hence there is such a thing as Truth. Some truths may be derived from other truths: thus, if it be true that "all men are mortal," then it is also true that "some men are mortal." Such a derivation of one truth from one or more other truths is called reasoning. Reasoning is based on laws of inference, which are also truths. All reasoning can be traced back to truths which cannot be derived from other truths, and hence are not the result of reasoning. Such truths, undervived from other truths, are called *axioms*. These axioms used in geometry relate not only to quantity but also to logic, for every syllogism proceeds by a self-evident truth of inference. Now because these axioms are not proved truths, Schopenhauer and others claim that the truths derived from them are themselves unproved.

Let us see how much force there is in this assertion. We begin with our first proposition that something is. This applies not only to material things, but also to laws, principles, truths, etc. The truth of a theorem is a something that has existence as much so as a tree or a mountain. It is an existence, too, that is stable and unchangeable. The tree may disappear, the mountain may be leveled or sunk in the ocean, but the truth of a mathematical theorem will never change. The truth that "two straight lines cannot inclose a space," or that "a straight line is the shortest distance from one point to another," will always remain true.

These truths of mathematics are especially noted for their certainty. Of the cognitions in the domain of sense we may be mistaken; we may think we see a cow in the meadow, when there is only a speck on the window pane. But there is no uncertainty attending the truths of arithmetic and geometry. We may infer by induction that heat will expand all metals; but we are never sure that a metal may not be discovered which would prove an exception to the law. In the case of mathematical truths, however, we are certain that there can be no exception. We are absolutely certain, for instance, that no case can ever be found in



which the cone is not equal to one-third of the cylinder with the same base and altitude. If we should make vessels of these forms and, testing it with water, not find it verified, we would doubt the correctness of our experiment, but never the result of our reasoning in the demonstration of the truth stated. These truths of mathematics are thus especially distinguished for their certainty and the impossibility of any exceptions.

Again, some truths are not only true, but they are necessarily true. This is especially the case with mathematical truths. Thus, "the sum of 2 and 3 is 5," is not only true, but is necessarily true. No power or circumstances can make it otherwise. So also the proposition that "the sum of the angles of a quadrilateral equals four right angles," or "the sum of the angles of a pentagon equals six right angles;"—they are not only true, but their truth is a necessity. No change of form or size will affect these principles of plane polygons; they have always been true, and will always be true. So also "the square on the hypotenuse equals the sum of the squares on the other two sides" is a truth which is not only certainly true, but is also necessarily true. No right-angled triangle can be made in which the sum of the squares in the two sides will differ by the smallest quantity from the square on the hypotenuse.

Now, we not only have truths which are necessarily true, but the mind has the power of knowing that they are necessarily true. I know that I am writing this article; and I know that the statement just written is true. We can know positively also that a truth derived from another truth, by the laws of reasoning, is true. Thus the mind has the power of knowing a truth to be true, and also of knowing it to be necessarily true. We not only know that "2 and 3 are 5" is true; but also that the sum cannot be 4 or 6 or anything but 5. We know that no power can cause the square on the hypotenuse to differ one iota from the sum of the squares on the base and perpendicular. We therefore know the necessity of truths derived by the laws of reasoning from axiomatic premises. In all this there is no mystery, but a clear conception of both common sense and philosophy.

But now what of these first truths from which or by means of which we derive these other truths? Well, first, we assert that they are true, and that we can know they are true. Second, we assert that they are necessarily true. The proposition "things that are equal to the same thing are equal to one another" is absolutely and necessarily true. It is impossible for the statement to be untrue. Third, and here is where the difficulty seems to arise, we *have the power to know* that they are true, and also to know that they are necessarily true. No one will question the mind's ability to see that a derived truth is true (assuming that the

premises are true); it is universally admitted that the mind has this power. But, it is equally certain that the mind has the power to see the truth of what are called *first truths* or *axioms*. To deny them is to take a position which we know is incorrect; to assert their opposite is to make an assertion which we know to be false. It needs no argument to prove that the denial of an axiom is false; we just know that it is false and that is the end of it. Our knowing, in these cases, is a finality; and we know that our knowing is correct. In other words, the mind has the power of cognizing axiomatic truths, and of knowing that they are both true and necessarily true.

For instance, I know that "to-day is not yesterday," that "a tree is not a man," that "Mr. Gladstone is not Mr. Blaine," etc.; these and similar propositions I know to be absolutely true, and every one else who understands them knows the same. So also with such axioms as "the whole is greater than any of its parts," "a straight line is the shortest distance between two points," etc.; every one knows them to be true as soon as they are announced or conceived. Such truths which are necessarily true and which we know to be necessarily true, constitute the basis from which the other truths of geometry are derived. These basal truths need no proof; they are self-evident and carry their certainty and necessity in their own nature. As such they afford a firm basis upon which the other truths may securely rest. They are unproved merely because they need no proof. If they could be proved, it would not add to their certainty. A thousand proofs, if such were possible, would not strengthen our faith in them or make them any more certain. It is thus a misleading statement to say that the proved truths of geometry are "unproved," and therefore may possess a flavor of uncertainty because they are derived from unproved truths. On the contrary, the utmost certainty attaches to the truths of geometry because they are derived by laws of inference absolutely true, from previous truths absolutely true. There is no mystery actual or philosophical in respect to the matter; and it is difficult to see how the basing of mathematics on axioms is in any sense an unfortunate one.

But the question may be pushed, How do we know that these axioms are true? I reply, there is no "how," we know them to be true; we just know they are true and that is the end of it. To know how we know them to be true, would be equivalent to proving them to be true, and they are beyond and independent of proof. To prove a truth is to establish it by some other truth; but there are no truths back of or before these axiomatic truths which authenticate them. They are absolutely first truths, underived and self-existent, and as such are cognized by the mind. Suppose I ask you, how do you know that you think; you say you are con-



scious of it, but that is merely saying you know you think. That is all there is in it; you just know that you think; there is no proof of it but your knowledge of it, and you ask for no proof. No one can prove you do not think; and no proof that you do would add any certainty to your knowledge that you do think. Your knowledge that you think is a first truth to you. First truths exist in the very nature of things, they are absolute and necessary; and the mind has the power to cognize them as they are and to cognize also their certainty and necessity. The process, though admirable and even grand, is simple and free from mystery.

And now is it possible to depart from this method of the use of axioms in the development of mathematical science? Grassmann has attempted such a departure; but it is far from certain that he has succeeded. Are not most of his postulates merely axioms in disguise? How does he know that "space has three dimensions;" is not this a cognition of Intuition, "a truth to be taken on faith?" He never saw a "dimension" or a "point," for a dimension is merely *length*, and length is a conception of reason and not an object of sense. No eye ever saw "a point;" it is seen only "in the mind's eye," that is by the eye of intuition. And then as soon as he begins to reason from these postulates he makes use of axiomatic truths; so that both in his premises and his inferences he makes use of truths which have not been proved, and thus each derived truth of his system is based upon an axiomatic truth either of quantity or logic. And so any attempt to construct a science of mathematics on anything but intuitive cognitions and self-evident truths will be actually found to involve those conceptions and truths. Shall we not be content to "let well enough alone," and rest with absolute certainty on the present system of geometry?

#### COGNITION, KNOWLEDGE, AND TRUTH.

Cognition in its simplest form is the act of feeling a percept to be the same as another percept perceived before. Cognition thus is founded in the relations of our percepts among each other. A single impression cannot as yet constitute cognition; two or several percepts of the same kind are needed in order to feel their identity.

Cognition consists of two elements; it has a subjective and an objective phase. The objective phase is that the object now perceived is the same (or at least in some respect the same) as the object perceived before; and the subjective phase is that it is also felt to be the same. The new percept fitting itself into the form produced in the brain by the former percept, is, in the literal sense of the word, re-cognized: it is cognized again. The condition of knowledge accordingly, in its simplest form, is 'the sameness of two or more percepts.'

Cognition of the higher and more complicated kind remains at bottom the same. It is always the act of recognizing a unity or a sameness in two or several phenomena. Cognition always presupposes a certain stock of experience, and to understand a phenomenon or to explain it means to recognize its identity with other phenomena with which we are familiar. The falling of stones to the ground is a familiar occurrence with us, and to show in how far the motion of the moon about the earth is the same kind of motion as that of the falling stone, only under other conditions, is an explanation of this phenomenon.

Knowledge is the formulated stock of experiences in which we have discovered common features, so that their identity even under different conditions has been and will always again be recognized.

Knowledge in animals is simple in comparison with knowledge in man. Animals easily recognize concrete things and persons, but they are not able to sum up their knowledge in abstract formulas; they cannot name things, they cannot speak, they cannot think in abstract ideas. Man's knowledge rises into the realm of abstract thought where he creates a new world of spiritual existence.

The data of the natural sciences are always certain phenomena of which we are aware by sensation. We classify these phenomena so as to embrace them by the same law in innumerable and, in many respects, apparently different processes. Take, for instance, the tiny luminous specks in the nocturnal sky which we as well as many animals perceive by our visual organs. To the animal the stars are meaningless,\* to the savage they are mysterious beings of an undiscoverable origin; but the astronomer by the aid of computing, and measuring, and calculating, with the additional help of telescopes, arranges in his mind the phenomena of the starry heaven in such a way as to make of his luminous sensations a well-ordered whole, standing in union with all the other facts of our experience.

Abstract ideas, generalizations, and conceptions of natural laws are the most important factors of human existence proper. By the help of abstract thought only has man become man. By the help of abstract thought only can he realize that he is a part of the whole of All-existence: he becomes religious. By the help of abstract thought he can regulate his actions according to maxims of universal applicability, so that he remains in harmony with the cosmical order of the Universe—with God: he becomes a moral being. By the help of abstract thought he can formulate his experiences in the rigid forms of arithmetical, geometrical, mechanical, or logical expressions, so that he comprehends the im-

\* Incidentally may be mentioned, that to the higher animals natural phenomena gain in impressiveness. The monkeys of the Sunda Isles, we are informed, gather shortly before sunrise in the highest tree-tops and salute the first rays of the rising sun with clamorous shouts.



manent necessity of the order of nature: he becomes scientific. When he finds that his abstract conceptions, his ideas, are realized in certain regular or characteristic instances, he acquires artistic taste; and when he begins to express his ideas in a visible or audible form, in colors, in sounds, or in words so that his creations represent single instances, incarnations as it were, of his ideas, he becomes an artist,—a painter, a musician, or a poet. If man succeeds in unifying all his knowledge on a scientific basis, so that it is systematized as a unitary conception of world and life and the aim of life, he becomes a philosopher. Thus abstract thought is the basis of all higher, intellectual, human, and humane aspirations. It raises man high above all the rest of animal creation and makes him their master. It is the cornerstone of humanity and produces Religion, Ethics, Science, Art, and Philosophy.

Abstract thoughts do not on the one hand represent absolute existences, nor on the other are they mere air castles; they are built upon the solid ground of reality. The facts of nature are specie and our abstract thoughts are bills which serve to economize the process of an exchange of thought. We must know the exact value in specie of every bill which is in our possession. And if the values of our abstract ideas are not ultimately founded upon the reality of positive facts, they are like bills or drafts for the payment of which there is no money in the bank.

Reality is often identified with material existence, as if matter were an exhaustive term for all that is real. Matter is an abstract; matter of itself, absolute matter, does not exist. Matter cannot even be conceived as real unless it is possessed with some kind of force (or motion, or energy); forceless matter is a non-entity. Further, every single particle of matter must appear in some special form. Formless matter is a non-entity also. Matter, force, and form are abstracts only, which we have made for our own convenience of comprehending the phenomena of the world. Reality itself is one undivided and indivisible whole. The most important abstraction among the three (matter, force, and form), we do not hesitate to say is, neither matter nor force, but form.

Matter is a general conception abstracted from things material; it indicates their property of possessing mass and volume, but excludes all special or individual features of material bodies. At the same time, accordingly, it is an extremely poor and empty concept. Generalizations naturally are the more void, the higher they are. The same may be said of motion as well as of force. Motion means change of place; force signifies that which is productive of a change of place. In order to know matter, we must become familiar with all kinds of matter, and in order to know the forces of

nature we must study the natural phenomena, *viz.*, the actual motions that are taking place.

The concept 'form' is not so barren as the generalizations 'matter' and 'force.' We cannot create new matter, neither can we create new force or motion, but we can create new forms. We can in our mind construct new combinations; and if they have been correctly arranged in our thoughts, they will (when an attempt at their execution is made) be seen to be realizable. The laws of form laid down in the formal sciences (in mathematics, arithmetic, pure logic, etc.), can be ascertained by self-observation. While we create new forms in our mind we evolve the more complex combinations from the simple ones and can thus comprehend them. We can, by methodical generalization, as well as consistent application of generalizations to different cases, exhaust the possibility of instances and thus formulate universal rules.

Form constitutes the order of the world, its cognizability and intelligibility. It imparts to the universe the spirituality of its existence. Form and the changeability of form make evolution possible. The evolution of forms brings sense and meaning into the forces of nature; it affords a direction to their movements and determines the progressive character of all growth. Form, a special kind of form, constitutes mind and human intelligence, and the establishment of the sciences of formal thought is the basis of exact philosophy. Form gives purpose to life and the problem of ethics finds in it its solution.

We now ask that often repeated question of Pilate, "What is truth?" Tradition says that Pilate was a skeptic; like the agnostic of modern days, he did not consider it worth his while to wait for a reply. And the gospel informs us that Jesus did not deign to answer him.

There have been complaints that we never can know 'absolute truth'; and indeed 'absolute truth' is unknowable because such a thing as 'absolute truth' does not exist. Cognition is a relation, and truth, if it has any meaning at all, means true cognition. Therefore the very essence of truth is a relation; and this relation is neither mysterious, nor inscrutable, nor unknowable, nor a profound secret; it can be ascertained perfectly well.

A conception, or a cognizance, or a formula of a number of experiences, or an abstract idea is true if it is in unison with all facts of reality; it is not true if in any way it conflicts with or is contradicted by facts of reality. The facts of reality remain the ultimate data of all our knowledge; truth is the unison of our conception of single facts with the whole system of all facts, and science as well as philosophy is our aspiration to realize the unity of nature.



## BYRON.

BY LOUIS BELROSE, JR.

O Singer of the summit and the sea,  
 O lover of the tempest, who divined  
 The language of the lightning and the wind,  
 Byron! the very air is full of thee.

Thy song was of the mountains and the free  
 Far-rolling ocean, where thine ears could find  
 Relief from rattle of the chains that bind  
 The tortured spirit of humanity.

A forest is thy poem, where my soul  
 Roams on through tropic luxury to climb  
 The snow-clad glorious heights that top the whole.

But there be those that root amid the slime  
 For noxious weeds; and when they find, extol  
 The little kitchen-gardeners of rhyme.

In view of the Villa Diodati, near Geneva, 1877.

## CERVANTES.

BY LOUIS BELROSE, JR.

Thou wast a poet after my own heart,  
 Cervantes.—When all Europe's hopes and fears  
 Followed Don Juan, yet a boy in years  
 Lepanto saw thee play the hero's part.

And when thy fortune led thee to this mart  
 Of Islam's foes, although a slave, the tears  
 Of twenty thousand captives in Algiers  
 Fell fewer for thy courage and thine art.

Ennobled by the hand that held the sword  
 With all the soldier's virtues, frank and free,  
 Thy pen spoke plain to rabble, priest, and lord;

Nor was the recompense refused to thee;  
 For parasite and pander swelled the horde  
 That mocked thy wounds, thine age, and poverty.

ALGIERS.

## SHELLEY.

BY WILLIAM BRUNTON.

O for the bird-wing breasting ether fine,  
 Surveying earth a tiny speck beneath,  
 The curling of great seas in serpent-sheath,  
 Inlaid with emerald lands from line to line!—

O for the virgin lips of dew-steeped flower,  
 Whose perfumed heart with love delights the day!—  
 Or for the fairy lute of lark, whose lay  
 Disperses despondency, as sunshine shower!

Yet why beseech such god-blessed gifts of old,  
 When our Prometheus won their varied worth?—  
 His eagle flight was so, his mouth of gold,  
 His lyric melody of heaven's own birth:

His orbic nature each perfection stole;  
 He lived like lark with sweet Narcissus soul!

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXX.—Continued.

Ilse was again alone in the hall, looking sadly  
 at the strange walls. All the sorrow that had ever  
 moved a human soul in this room, jealousy and wounded  
 pride, feverish expectation and hopeless longing,

\* Translation copyrighted.

mourning over the destruction of happiness, and terror  
 for the future, the cries of anguish and the plaints of  
 tormented conscience, all these now awoke an indis-  
 tinct and trembling echo in the heart of the woman.

"It is strange and gloomy here, and if I try to ex-  
 press in words what distresses me, all power of expres-  
 sion fails me. I am no prisoner, and yet the air that  
 surrounds me is that of a dungeon. The Chamberlain  
 has not been near me for days, and the young Prince,  
 who used to speak to me as to a friend, comes seldom,  
 and then but for a few minutes, and it is worse than if  
 he were not here. He is as depressed as I am, and  
 looks at me as if he felt the same nameless anguish.  
 And his father? when he comes to me he is so kind  
 that one cannot but like him; but as soon as he turns  
 his back his features appear before my mind distorted.  
 It is not good to be near the great people of the world;  
 they seem to take a fancy to one and open their heart  
 as to friends, and one scarcely feels the elevation of  
 mind occasioned by this, when tormenting spirits seem  
 suddenly to draw them back into their invisible realm,  
 and one is troubled and excited about them. Such a  
 life is destructive of peace.

"Felix says, one ought not to care about these  
 frivolous people. How can one avoid interest and  
 anxiety about them when the welfare of their souls is  
 a blessing to all?

"Is it only this that gives you such restless thoughts,  
 Ilse?" she asked herself; "is it this, or is it pride, now  
 wounded, and now again flattered; or is it anguish  
 about the loved one whom she wishes secretly to tear  
 from you?

"Why am I so fearful about you, my Felix? Why  
 do I despair because he has found a woman here of  
 the same stamp of mind as his own? Am I not so also?  
 Have I too not unfolded in the light of his mind? I  
 am no longer the ignorant country-girl that he once  
 brought from among the herds. If I am deficient in  
 the attractive charm of the distinguished lady, what  
 can she give him more than I? He is no boy, and he  
 knows that every hour I live for him. I despise you,  
 miserable thoughts; how have you found entrance into  
 my soul? I am no prisoner within these walls, and if  
 I linger here where you have power over me, I remain  
 on his account. One should not forsake him whom  
 one loves,—that word was spoken for me also. My  
 father's child shall not cry and mourn even though her  
 loved one should be sitting with the Princess by the  
 hazel-bush."

\* \* \*

Gabriel was stealing along in a distant part of the  
 pleasure-ground. He suddenly felt a touch on his  
 shoulder; Prince Victor was standing behind him.

"Friend Gabriel?"

"At your Highness's commands."



"Where have you served?"

"With the Blue Hussars."

"Good," nodded the Prince; "we are in the same branch of the service. I hear you are a trustworthy fellow. But what is the matter with you?" He took out his purse. "We will share; take what you want."

Gabriel shook his head.

"Then the women are at fault," cried the Prince; "that is worse. Is she proud?"

Gabriel dissented.

"Is she faithless?"

The poor fellow turned away.

"I am, alas! a bad intercessor with parents," said the Prince, sympathizingly; "the race of fathers have little confidence in me. But if it is only a question of appealing to a girl's conscience, then depend upon me."

"I thank you for your good-will, Highness, but nothing can help me. I will have to fight it out alone."

He turned away again.

"Bah! comrade, have you forgotten the soldiers' saying: 'Like all, love one, grieve for none?' If your heart is heavy, you should not rove about as you do. In lack of another companion put up for the time with me."

"That is too much honor," said Gabriel, taking off his cap.

The Prince had during this conversation gradually led him into a thicket; he seated himself on the root of an old tree, and motioned Gabriel to the next trunk.

"We are in concealment here; you look out that way, I will watch this road, that no one can surprise us. How do your lodgings please you? Have you found pleasant acquaintances?"

"I think it prudent to trust no one here," answered Gabriel, cautiously.

"But I do not belong here; there is no reason why you should not make me an exception. You may assume that we belong to the same company, that we are sitting by the same fire, and drinking from the same flask. You are right: all is not so safe here as it looks. I do not like these nocturnal disturbances in the castle. Have you heard of them?"

Gabriel assented.

"In such an old castle," continued the Prince, "there are many doors that few know—perhaps also passages in the wall. Whether it is spirits or something else, who knows? It glides about and sometimes comes out when one least expects it; and just when one has put on one's night-shirt a secret door is opened, or a plank in the floor rises, and a cursed apparition floats up, removes what is on the table, and before one can bethink oneself, disappears again."

"Who can allow such a thing, your Highness?" replied Gabriel, valiantly.

"Who can be on his guard?" said the Prince, laugh-

ing; "it stretches out its hand, and one becomes immovable; it holds a sponge before the nose of the sleeper and he does not awake."

Gabriel listened attentively.

"People say that in the Pavilion all is not secure," continued the Prince. "It would be as well for a trusty man to make an examination in secret; and if an entrance should be found that is not regular it should be fastened with a screw or a bolt. It is indeed uncertain whether or not one may find such a thing, for such devil's work is slyly managed."

He nodded significantly to Gabriel, who stared at him in great astonishment.

"That is only a thought of mine," said the Prince; but when a soldier is in foreign quarters he looks after every security during the time that his people sleep."

"I understand all," replied Gabriel, in a low voice.

"One must not cause others unnecessary alarm," continued the Prince; "but in secret one may do one's duty like a brave man. I see you are that." The Prince rose from his seat. "If you should at any time need my help, or have anything to tell me which no one else should know, I have a fellow with a great moustache, a good, quiet man; make his acquaintance. For the rest, take care of yourselves here. There is a lackey who idles about near you; if there are any errands to do he can attend to them. It is a good thing for a family to have a trustworthy man at hand in a strange house. Good day, comrade, I hope I have changed the current of your thoughts."

He went away; Gabriel remained in deep thought. The bantering of the Prince had roused the honest man from his sorrow; he busied himself now about the house in the day-time, but in the evening, when his master and mistress were at the theatre, he was to be seen sometimes with the Prince's servant in confidential conversation on a garden bench.

The spirit of sad foreboding spread its grey veil over the walls of the Pavilion, but in the Sovereign's castle meanwhile an invisible hobgoblin of another kind was at work, disturbing great and small. The stable was in consternation. The Prince's favorite saddle-horse was a white Ivenacker. When in the morning the groom went to the horse, he found it with a large black heart painted on its chest. He could not wash out the scandalous mark, probably the evil spirit had in this prank employed a dye intended for the hair of man. Connoisseurs declared that only time could heal the injury. They could not help making it known to the Sovereign who was violently angry, and set the strictest investigations on foot. The night-watchers of the stable had seen no one, no stranger's foot had entered the place; only the groom of Prince Victor, a moustached foreigner, had, at the same time with the other stable servants, cleaned the horse that



he had lately received as a present from a relative. The man was examined, he spoke little German, was said by the other servants to be harmless and simple, and nothing could be learnt from him. Finally, the stable-boy who had kept watch was dismissed from service. He disappeared from the capital, and would have been reduced to great misery if Prince Victor had not provided for the poor wretch in his garrison.

There was a great uproar among the ballet-girls. In the new tragic ballet, "The Water Sprite," the first dancer, Guiseppa Scarletti, had a brilliant rôle, in which she was to wear green-silk trunks, with rich silver trimmings. When she was to put on this part of the costume, which was very important for the rôle, for the first representation, her assistant was so awkward as to hand it to her wrong side foremost. The lady expressed her displeasure strongly, the tire-woman turned it round, and it was still wrong. Upon nearer inspection of this piece of art, it was discovered, with dismay, that it presented two convex surfaces like the shell of a bivalve. Mademoiselle Scarletti broke out into a fury, and then into tears and finally hysterics; the manager and the intendand were called; the *artiste* declared that after this disgrace and disturbance she could not dance. It was not until Prince Victor, whom she highly esteemed, came into the dressing-room to express his deep indignation, and the Sovereign desired her to be told that the insult should be punished in the severest manner, that she recovered sufficient courage to play the difficult rôle. Meanwhile the fairy-like rapidity of the theatrical tailor had remedied the injury to her dress. She danced superbly, but with a sad expression that became her well. The intendand was already rejoicing that the misfortune had thus passed off, when suddenly, in the midst of the last scene, when the whole depth of the stage was disclosed, the exchanged trunks appeared under Bengal lights in the water nymph's grotto, hanging peacefully upon two projecting points of a silver rock, as if a water sprite had hung them up to dry. Upon this there was a disturbance, and loud laughter among the audience, and the curtain had to fall before the Bengal lights were extinguished. It all looked like revenge, but again the culprit could not be discovered.

The hair of all the servants stood on end. They knew that in the bad times of the princely house a black lady walked through the corridors and rooms, which portended misfortune to it. The belief in this was general; even the High Marshal shared in it; the black lady had appeared to his grandfather, when, on a lonely night, he was awaiting the return of his gracious master. One evening, after the Court had withdrawn, the Marshal was walking, with the lackey carrying a light before him, through the empty rooms to the wing in which Prince Victor lodged, in order to

smoke a cigar with him. Suddenly the lackey started back and pointed, trembling, to a corner. There stood the black figure, the head covered with a veil; she raised her hand threateningly, and disappeared through a door in the tapestry. The light fell out of the hand of the lackey, the Marshal groped in the dark to the ante-room of the Prince, and sank down on the sofa there. When the Prince entered from his dressing-room he found him in a state of the highest consternation: even a glass of punch, which he himself poured out, could not arouse him from his depression. The news that the black lady had appeared flew throughout the castle; an uneasy foreboding of evil occupied the Court. In the evening the lackeys ran hurriedly through the corridor, and were frightened at the echo of their own steps, and the Court ladies would not leave their rooms without escort. The Sovereign also heard of it; his brow contracted gloomily, and at dinner he looked contemptuously at the Marshal.

Even the Court ladies were not spared. Miss von Lossau, who lodged in a wing of the palace over the rooms of the Princess, returned to her apartment one night in the happiest frame of mind. Prince Victor had paid her marked attentions. He had been very amusing, and had shown a degree of feeling which he had never before evinced. Her maid undressed her, and she laid herself to rest with sweet and pleasant thoughts. All was quiet: she fell into her first sleep. The image of the Prince danced before her; then she heard a slight noise; there was a crackling; something moved slowly under her bed. She started; the mysterious noise ceased. She was on the point of deluding herself into the belief that it was a dream, when the noise was repeated under the bed, and something came clattering out. She heard an alarming sound, and saw by the faint light of the night-lamp that a ball was slowly pushing itself behind the chair, and stopping in front of the bed. Half unconscious from terror, she jumped out of bed, touched a strange-object with her naked foot, at once felt a sharp pain, and sank back with a scream. She now raised a loud cry for help, till her maid rushed in, and tremblingly lit the candle. The lady was still shrieking in a corner, where the prickly spectre-ball still lingered in quiet timidity, and gradually showed itself to be a great hedgehog, which was sitting there, still dreamy from its winter sleep, with tears on its nose. Miss Lossau became ill from fright. When the physician hastened to her the next morning, he found the lackeys and maid-servants collected in close conclave before her door. On the door was pasted a white placard, on which was to be read, in large characters, "Bettina von Lossau, Princely Court Spy." Again there was the strictest investigation, and again the culprit was not discovered.

(To be continued.)



## CORRESPONDENCE.

## MRS. M. M. E. ON MARRIAGE CONTRACTS.

To the Editor of THE OPEN COURT:—

A position which will not bear a thorough investigation is not worth defending, so I welcome the criticisms of Mrs. M. M. E., and of any one else who desires to take a hand. I think I can explain to the satisfaction of Mrs. M. M. E. some of the points she refers to.

I have not ignored the rights of others than the two principals in a case of separation of husband and wife, as Mrs. M. M. E. avers. I have insisted that the support of children should devolve on the father in such case, as in marriage. No matter where they might be, this rule would secure them from want at least, and leave the mother at liberty to support herself. Of course such law would be limited by the arrival at an age of self-support by children. This responsibility on the part of fathers is not only just, but it is natural. The man is primarily responsible for their existence, and if there is one form of responsibility more obligatory than another, it is this one. Support once secured, the chief obstacle to their finding a home away from the father, if that should be necessary, is removed. Remaining objections are trivial compared with the principal interests involved.

Mrs. M. M. E. further asserts that separation would fall more heavily on the woman than on the man. This would only be true in two of the five supposable cases, *i. e.*, where the man alone desires the separation, either from a good or from a bad woman. We will probably agree, that in the latter case the hardship is that which is found in the "way of the transgressor"; while in the former case many persons will agree with me that separation is the least of the two evils which confront the good woman whose husband wishes to leave her. If she is a good and congenial woman, the man who wishes to leave her must be an unworthy character. But that her "occupation is gone," as Mrs. M. M. E. declares, I deny; I should say that it was only opening with brighter prospects, and that her future would probably be far better than her past.

In my paper I did not devote more than a few lines to the question of support of the woman after separation. It is to my mind a self-evident proposition that an abandonment of the marriage relation between a man and woman, means an abandonment of all responsibilities growing out of that relation, so far as the principals are concerned. This is not only just from a business point of view (a view which I take with reluctance), but it is the only fair thing in its relation to marriage in general. The man will probably marry again, and his resources will be generally needed to support the new relation. He had certainly better devote his means to the support of a woman with whom he can live, than to that of one with whom he cannot live. A law requiring the support by the man of a woman from whom he is separated is unfair to the man and to some second woman, and is also unfair to society. It prevents the man from marrying, and so encourages irregularities; and it removes from the woman the necessity of adapting herself to the order of nature and of society, thus paying a premium for general cussedness. The advantage to be gained by bad women over the good under such an arrangement, is obvious. The law of absolute divorce, recognizing these facts, requires no financial consideration either way.

The question of the financial position of women in marriage has occupied a good deal of the thought of jurists. That a woman should be protected in her individual property rights is fair, in view of the risks arising from her possible marriage to a spendthrift. But it affords men an opportunity of escape from the payment of their debts, which results in a heavy tax on society. But some of the propositions which are put forth by certain agitators

on this subject are preposterous. It is argued that a married woman is entitled to half the profits arising from a man's business, since she has lived with him and kept "his" house, and borne and brought up "his" children, etc., during this period. But there is no real relation between the two orders of facts, except that the support of the family reduces a man's financial ability by the amount which he spends in that way. The support of a family is not profitable financially. It is very profitable morally, and is as much so to the woman as to the man. Both are benefited by the relation, and each pays for what they get. The man pays in support; the woman in the pains and labors of her occupation. Both are treated about equally by the arrangement, so that the man's business successes or failures are a matter quite apart. It is said that a man's financial ability is always good, but that a woman's capital is exhausted as years pass by. So be it. Her support is sure if she is married and no proposition has been made by which she can be separated from her husband after the first five years except by her own consent, or her own bad conduct.

This materialistic view of the subject is not congenial to the writer, but simply flows from the consideration of its dark side. The bright side, which should be uppermost in everyone's mind, shows that the sex-interest is strong enough to furnish all the inducements to mutual admiration and consideration, and that if other feelings arise it is due to the fact that this interest is not in a healthy condition. We are directed to the conclusion that the real remedy for woman's wrongs, and woman's rights as well, is to give every person as full an opportunity of finding their true "double," as the safety of society will permit. But no one will ever find that "double" who does not first acknowledge in their own minds the actual character of the relation as shown by the laws of Nature, which lie at the basis of all human institutions.

E. D. COPE.

PHILADELPHIA, January, 1889.

## NOTES.

We are in receipt of an interesting pamphlet by Edward Kibler, Esq., of Newark Ohio, entitled "Universality of two Temperaments."

The interesting essay, in the present number, entitled "Truth and Fiction," has been translated, with the sanction of Dr. Meyer from his work "*Kosmische Weltansichten*." Dr. M. Wilhelm Meyer is editor of *Himmel und Erde*, the astronomical journal recently started in Berlin.

The three latest publications of the Humboldt Library are reprints of: "Freedom in Science and Teaching," by Ernst Hæckel, with a preface by Prof. Huxley; "The Coming Slavery. The Sins of Legislators, and The Great Political Superstition," by Herbert Spencer; "Tropical Africa," by Henry Drummond. Price 15 Cents each. The Humboldt Publishing Company, 24 East Fourth Street, New York.

Dr. Edward Brooks of Philadelphia, the author of many excellent text-books on mathematics, mental philosophy, and kindred subjects, presents in his essay "Axioms the Basis of Mathematics" a criticism of our views as set forth in the editorial articles "Form and Formal Thought" (Nos. 64, 66, 67, and 69). Our answer "The Old and The New Mathematics" will appear in the issue of next week.

The opening article of the February *Century* is upon Gérôme,—chatty and instructive. The portraits of Mary, Queen of Scots, are interesting from the standpoint of the history of art. "Fairies and Druids of Ireland" appears in the series upon Erin, by Charles de Kay; the Ugrian element in the Irish race is discovered from the legends, annals, and traditions preserved in the history and folk-lore of the nation.



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OPEN COURT PUBLISHING CO.,

169-175 LA SALLE STREET,

P. O. Drawer F, Chicago, Illinois.



PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRESIDENT.

DR. PAUL CARUS, Editor.

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FORMER CONTRIBUTIONS TO "THE OPEN COURT."

EDWARD. C. HEGELER.

In No. 15, Mr. E. C. Hegeler explains his view of the soul. The soul, he says, is the form of a very complicated, self-acting mechanism of living substance; a part of its activity is accompanied with feeling; the feelings correspond in *form* to the most essential parts of the mechanism. The soul, as expressed by Bock, enters into our brain through the gateway of the senses. Reason is formed through the instrumentality of language. Noiré says: "Man thinks because he speaks." Immortality does not only mean the indestructibility of matter and energy but *soul preservation*. It implies not only continuance of life, but life in a special form. We can to a great extent renew ourselves by forming our soul in the growing generations through education and by example. To preserve and to elevate the *quality* of the human soul, that is the basis of ethics.

## WHEELBARROW.

"WHEELBARROW" speaks to the laboring men from the standpoint of a laborer, although he does not work with a shovel and wheelbarrow now. In his first essay, published in one of the early numbers of *THE OPEN COURT*, he says: "I sign my name 'Wheelbarrow' because that is the implement of my handicraft or was when I was a strong man. I was by profession a 'railroad man'; my part in the railroad business was making the road-bed by the aid of a pick, a shovel and a wheelbarrow." We quote this passage because from our personal acquaintance with "Wheelbarrow" we understand that it is literally true.

"Wheelbarrow" treats the labor question in a manner peculiarly his own, with illustrations drawn from every-day experience and presenting a moral which may be seen at a glance. He advises the working men in a friendly, persuasive way, and criticises many of their methods of reform as harmful to themselves, tyrannical and unwise. These essays have been much admired, not only by the working men, but also by men eminent in American literature. In an editorial article on "Wheelbarrow," the *Boston Herald* said: "He possesses in a striking degree the rare ability of being able to treat of complicated matters in so lucid and simple a manner as to make them easy of comprehension to those who have never before given the subject much thought. Last year he published a series of tracts on the labor question which were widely read, but not half so widely as they deserved to be. Treating of his subject from a working man's standpoint, he displayed an extraordinary wealth of apt but homely illustrations."

WHEELBARROW'S essays are contained in the following numbers of THE OPEN COURT:

Chopping Sand.....	page 353 in No. 13
The Laokoon of Labor.....	" 410 in No. 15
The Poets of Liberty and Labor. THOMAS HOOD.....	" 461 in No. 17
To Arms.....	" 615 in No. 22
The Poets of Liberty and Labor. Continued.	
GERALD MASSEY.....	" 745 in No. 26
Making Scarcity.....	" 901 in No. 34
Economic Conferences. I. A review of Geo.	
A. Schilling's lecture.....	" 950 in No. 37
Economic Conferences. II. A review of Lyman	
J. Gage's lecture.....	" 993 in No. 40
Economic Conferences. III. A review of T. J.	
Morgan's lecture.....	" 1104 in No. 47

PROF. R. D. COPE.

In Number 23 Professor E. D. Cope treats of "Evolution and Idealism," and finds in the evidence of evolution the refutation of the doctrine of idealism. He concedes that much of what we consider the objective world is unreal and has no existence, except, as we perceive it, like the snakes, for instance, to the victim of *delirium tremens*; and he agrees that "the properties of matter" owe much of their character, and even their existence, to our senses, which give matter all its qualities, or, at least, modify and change them according to the number of our senses and their ability to perceive. Yet, for all that, he says: "If a given supposed object be purely a mental state on the part of the subject, a rational cause for the production of that state is wanting."

With great self-confidence, Professor Cope says: "Evolution gives the *coup de grace* to idealism of the consistent type. In the gradual unfolding of organic life it sees the two universal facts, subject and object. It sees them interact and influence each other," and further on he says: "It is equally competent for the materialist to deny the existence of mind as for the idealist to deny the existence of matter. The materialist behold the imperfection of the senses may pronounce them to be, one by one, incompetent witnesses, and declare them to be illusions. But the fact is, both exist, object and subject, matter and mind."



# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 77. (Vol. II.—57.)

CHICAGO, FEBRUARY 14, 1889.

{ Two Dollars per Year.  
} Single Copies, 10 cts.

## A FLAW IN THE FOUNDATION OF GEOMETRY.\*

BY HERMANN GRASSMANN.

GEOMETRY, at the present day, still lacks a scientific beginning. The foundation on which the entire structure rests, suffers from a flaw that necessitates a complete reconstruction of the system.

In making an assertion such as the above, which threatens to overturn an edifice consecrated by the authority of centuries, it is incumbent upon me to support the same with the most conclusive kind of reasons.

The flaw, the presence of which I propose to show, is most easily recognizable in the concept of the plane. Taking the definition given in the systems of geometry with which I am acquainted, I find it to be assumed fundamentally therein, that a straight line which has two points in common with a plane falls wholly within the plane;—be it that this is tacitly accepted (as Euclid has done), or embraced in the definition of a plane, or propounded, finally, as a distinct axiom. The first case,—where the assumption is tacitly made,—is on its face unscientific; while the second, as I shall presently show, can with no more reason pretend to the requisites of scientific character.†

It is clear that the plane is already defined, be it as the aggregate of the parallel lines that can be drawn from a straight line in a direction not included in the latter, be it as the aggregate of straight lines that can be drawn from a point to a straight line. Adhering to the first definition now, it is clear that every straight line which cuts two of these parallels must also cut all the rest—a proposition not demonstrable without the assistance of a series of auxiliary propositions. If now a plane be defined as a surface which wholly contains all straight lines having two points in common with it, it is at once seen how, thus, the preceding proposition, hidden in this definition, has been smuggled into the domain of geometry; and just as little as any mathematician would permit an attempt to avoid the proof of the proposition that the opposite sides of parallelograms are of equal length, by defining a parallelogram as a quadrilateral whose opposite sides are equal and

parallel; no more are we to allow the proposition stated above to be improperly introduced into geometry by a definition, like that, of a plane.

The only remaining course, therefore, in case we wished to hold to the method of geometry hitherto pursued, would be to convert that proposition into an axiom. But if an axiom can be avoided without having to introduce a new one in its stead, it must be done; even though it should bring about a complete reconstruction of the whole science. For, in this way, the science must gain substantially in simplicity.

Proceeding now from this defect, which we trust we have shown, and going back still farther, to discover the causes of the same, we will find the latter to lie in the faulty conception taken of geometrical axioms. In the first place, it must strike the attention, that by the side of veritable axioms which set forth geometrical intuitions, entirely abstract propositions are frequently presented under the same name, as: "if two magnitudes are equal to the same magnitude, then they are equal to each other," and which, if by axioms assumed truths be understood, are by no means entitled to be thus named. In fact, I believe I have shown before (Sec. 1, Theory of Extension), that the abstract proposition just cited expresses only the idea of equality; and this holds good, also, of the other abstract propositions which point out substantially that what is produced in the same way from the same is itself the same [equal].

From the imputation of confounding axioms with assumed concepts Euclid himself, however, is free; Euclid incorporated the former among his postulates (*ἀρχήματα*), while he separated the latter as common concepts (*κοινὰ ἐννοιαί*)—a proceeding which even on the part of his commentators was no longer understood, and likewise with modern mathematicians, unfortunately for science, has met with little imitation. As a matter of fact, the abstract methods of mathematical science know no axioms at all; the initial proof, in these methods, is brought about by the combination of predications;† use being made of no other law of pro-

\* Translated by JPKK from *Die Ausdehnungs-Lehre von 1844 oder Die lineale Ausdehnungs-Lehre: ein neuer Zweig der Mathematik*, of Hermann Grassmann, pp. 32-37. Leipzig: 1878. Otto Wigand.

† As to the requisites of scientific character mentioned, see Grassmann's remarks at the close of editorial article, on page 1172 of this number.—TR.

\* It is quite possible, indeed, that an exposition exists, in which the defect alluded to upon has been avoided, without having come to my knowledge. But as the doctrines of parallels, that stumbling-block of mathematicians, would have had to have been cleared up in such an exposition, I could therefore assume with approximate certainty that no such exposition as yet exists.

† See p. 1370 of THE OPEN COURT, lines 11-23, first column.—TR.



gression than the universal one of logic that that which is predicated of a series of objects so as to apply to each separately, can be predicated in fact of each separate object belonging to that series. To set up this law of progression as an axiom, which, as we find, embraces merely an act of reflection upon what was intended to be said by the general proposition, can occur to no mathematician; this is done, improperly, in logic; and sometimes even, it is attempted to be proved in that science.

In geometry, therefore, only those truths are left as axioms, which are derived from the conception of space. These axioms, accordingly, will have been correctly reached, if when taken together, they afford the complete conception of space, and if, further, none be set forth which does not aid in completing this conception. Just here the true cause of the defective foundation of geometry in its present shape appears. Thus, on the one hand, axioms are overlooked that express primary conceptions of space, and which, afterwards, when their application is demanded, must be tacitly assumed; on the other, again, axioms are laid down, that express no fundamental conception of space, and which, consequently, upon closer examination, turn out to be superfluous; while, taken together, the axioms in general afford the impression of an aggregate of the clearest possible principles, arranged with a view to the easiest possible methods of proof.

The axioms of geometry, in the form we are compelled to assume them, state, rather, the fundamental properties of space as originally given to our representative faculty; viz., its simpleness and relative limitedness.

The simpleness of space is stated in the axiom:

1. "Space is in all places and in all directions constituted the same; i. e., in all places and in all directions the same constructions can be made."

This axiom, from its very form of expression, is separable into two axioms, of which one lays down the possibility of continued motion, and the other the possibility of a change of direction; viz.:

- II. 1. "Equality is conceivable with difference of place."
2. "Equality is conceivable with difference of direction, and particularly when the direction is reversed."

Let us call those constructions "equal and concurring" [like-running\*] which are made in exactly the same manner at different places, and thus are only distinguished with respect to place; those which are constructed in reversed directions in exactly the same manner, although in different places, "equal and con-

trary-running," in short, "reversed"; and those "exactly equal" which are different only with respect to place and direction. Adhering to these terms, further, to denote the results of the construction, we can express the above two axioms, with emphasis upon the subordinate clause of the second [II, 2], more simply thus:

- III. 1. "That which is formed by equal and concurring [like-running] constructions, is likewise equal and concurring."

2. "That which is formed by reversed constructions, is, in its turn, reversed."

3. "That which is formed by exactly the same [exactly equal] constructions (although at different places and from different initial directions) is in its turn exactly the same [exactly equal]."

The first two of these three axioms constitute the positive assumption of that part of geometry which answers to the first part of our science.

The relative limitedness of space is set forth in the axiom:

"Space is a system of third degree."

The immediate obviousness of these axioms\* and their indispensability must strike every person at once; without the first three [I, II, and III] there is no straight line, no plane, no angle possible; while the last sets forth space itself in its threefold extension. And although in the usual expositions they are for the most part passed over, yet it is not difficult to point to the places where they are tacitly employed. That they are adequate to the ends of geometry, can only be completely found out by the development of geometry from this germinal point.

#### THE DREAM-BEECH.

FROM THE GERMAN OF RICHARD LEANDER BY PHOK.

It is a hundred years or more ago since the lightning struck it and split it from top to bottom, and the plough now passes over the place where it grew. But in those days, upon the grassy knoll some few hundred paces from the first house of the village, a grand old beech-tree stood. And what a tree it was!—Such trees do not grow any more, for animals and people and plants and trees are all getting smaller and meaner every day. The country people used to say it came down from the time when the heathens lived in the

\* It may appear strange that the proposition is not taken here as an axiom, which states that between two points only one straight line is possible, or, as Euclid expresses it, that two straight lines cannot enclose a space ( $\gamma\epsilon\upsilon\sigma\iota\omicron\nu$ ). But this is contained in the first axiom, when correctly conceived; thus,—If two straight lines, which have one point in common, were to have still another point in common, then if the two lines did not at the same time have all other points in common and so completely coincided, the space at the second point mentioned would be quite differently constituted from what it was at the others. Should this proof, which moreover, would assume a stricter form in the actual development of the science, appear to hear too marked a philosophical stamp, we may nevertheless propound the proposition as a partial axiom for mathematical procedure, by merely keeping in mind its connection with the first axiom alone.

\* We adopt here more nearly the common way of conception, only substituting the more definite ideas of concurring [*gleichläufig*, like-running] and reversed [*gegenläufig*, contrary-running], for the concept parallel.



land; that a saint had been killed beneath the tree by the wicked men, and that its roots had drank of the holy blood, which ascended into the trunk and the branches and made it so great and strong. Who knows if it be true? But there was a great secret about the Beech. Everybody in the village, both great and small, knew *that*. Whoever fell asleep beneath it and had a dream—that dream was sure to come true. This was why it was called the Dream-Beech long before any one could remember, and nobody called it anything else. But there was something besides. Whoever lay down to sleep beneath the dream-tree durst not think of what he was going to dream. If he did, he dreamt of nothing but confusion and chaos that no sensible person could make anything out of at all. To be sure, it was a hard thing to do, because most people are altogether too curious for that, and so nearly everybody that tried it was sure to fail. Indeed, at the time when this story happened, I do not believe there was a single soul in the village, either man or woman, that had succeeded a single time. But all this about the dream-beech was true—that was certain.

One warm summer's day, when not a breath of air was stirring, a poor young apprentice came wandering along the high-road. It had gone hard with him for the many years he had passed among strangers, and as he came up to the village, he turned his pockets inside out to see what was left—but they were all empty. "What is to be done?" he thought to himself. "Worn out and weary; nobody will take you in, and 'fighting'—they have well called our struggle for bits of charity 'fighting'—that's a wearisome business." Just then he saw the lordly beech-tree on the grassy knoll before him, and as it stood but a few paces from the road, he threw himself upon the grass beneath it to rest himself a while. But the tree had a curious way of rustling, and as its branches swayed softly to and fro, there fell here and there through the leaves a ray of glittering sunshine, and here and there a particle of the blue sky beyond shone through upon him: his eye-lids drooped and he fell into a deep sleep.

The beech-tree dropped a branch with three leaflets, that fluttered and fell upon his breast. He dreamt that he sat in a cosy room at table, that the table was his and the room his and the house his too. A young woman stood before the table, resting her hands upon it and gazing kindly upon him, and that was his wife. And upon his knees he held a child which he was feeding porridge, and as the porridge was too hot, he was blowing into the spoon. His wife said: "What a fine nurse you'd make, dear!" and then she laughed at the idea. Another child, too, was jumping about the room, a stout, chubby-cheeked little fellow, with a big carrot on a string, which he

was chasing about and shouting at, as if it were a real, live fox. And both these children were his.—This was his dream, and it must have pleased him quite, for, as he slept, his whole face was covered with smiles.

When he awoke it was almost evening. The village shepherd with his sheep stood before him, quietly working at his net. He sprang up refreshed, stretched himself, looked about, and exclaimed "Kind heaven to him whose lot should be as this! 'Tis nice at least to know how it really would be." Then the shepherd approached him and asked him where he was going and whether he had ever heard about the tree. When he was convinced that he was as innocent as the babe unborn, he cried out: "You're a lucky fellow? I know you dreamt something good; I could see it on your face. Why, I was looking at you all the time you were asleep!" Then he told him what the story about the tree was: "Your dream will come true; that is just as sure as that this is a ewe and that a ram. Just ask the people at the village if what I say is not so. And now tell me what you dreamed!"

"Old fellow," replied the apprentice with a merry laugh, "that's the way they pump country-folk. I'm going to keep my dream to myself; you won't take that amiss surely. But depend upon it, nothing will come of it after all!"

He did not say this for the sake of saying it; he really meant it, for as he went toward the village he kept saying to himself: "Fiddle-faddle, shepherd's prattle! I'd like to know where the tree got the knack from."

From the gable of the third house as he came into the village, a long staff jutted out into the street; a gilded crown hung from it, and just beneath, in front of the door-way, stood mine host of the Golden Crown. He was in the best of humor, for he had just had supper, and had had quite enough, and that was the best time of day for him. The apprentice civilly doffed his cap and asked if he would keep him over night for a "God bless you."

The landlord looked at the trim young fellow in his dusty and torn clothes, eyeing him closely from top to toe. Then he nodded kindly and said: "Sit right down in the arbor there, near the door. May be there's a bit of bread and a jug of wine left over, and in the meantime they will make you a bed of straw." Whereupon he went into the house and told his daughter.

The daughter brought the bread and the wine, seated herself opposite him and had him tell her of the strange lands and things he had seen. And she told him, in turn, what she knew of the village-gossip, of the wheat-crop, that their neighbor's wife had had twins, and when the next village-dance was to take place at the Golden Crown.



Suddenly she sprang from her seat, and bending over the table to the apprentice, she said: "What are those three leaves there in your jacket?" The apprentice looked and found the branch with the three leaves; it had stuck fast to his jacket. "Oh, they must be off of the big beech-tree just outside the village," he said, "I took a little nap under it."

The maid listened eagerly and waited for him to say more. But he stopped; and then she artfully began to ask him all sorts of questions, till she found out for sure that he had slept under the Dream-Beech; and then she went around and around just like a kitten about a plate of hot milk, till she felt sure that he knew nothing of the wonderful power and virtue of the Dream-Beech; for he was an artful rogue and made out that he knew nothing about it.

When she had got that far, she arose and brought him another jug of wine, plied him to drink of it, and told him all sorts of things that she had dreamed and of what a great pity it was that none of them had ever come true.

In the meantime the shepherd came back from the pastures, and was driving his sheep through the village street. As he was passing the Golden Crown, and saw the maid sitting in the arbor and talking so earnestly with the apprentice, he stood still for a moment, and said: "Yes, he'll tell *you* all about his pretty dream of course, and I could not get a word from him." And at that he went his way with his sheep.

But the apprentice would tell the maid of nothing like a dream and she grew so curious that she could stand it no longer, and she straightway asked him what he had dreamt while he was asleep under the beech-tree.

Now the apprentice was an arrant rogue and his dream had made him mischievous and happy, so he puckers up his face, winks slyly with his eye, and says: "The beautiful dream that I had! It must be true. Yet I wouldn't dare to tell what it was." But she kept on urging and teasing him to tell, when he moved up quite close to her and said gravely: "I dreamed that I would marry the daughter of mine host of the Golden Crown, and that one day I would myself be the landlord here."

At first the maiden turned as white as chalk and then as red as a rose; she went into the house, but after a while she came again and asked him if he was in earnest and if he had really dreamed that.

"Why, of course!" he said, "and the one I saw in my dream was just the image of you." Again the maiden went into the house, but this time she did not come again. She went into her little room, and the thoughts poured over her heart as does the water over a river-weir; ever afresh and anew, on and on, as if the end would never come. "He does not know

about the tree. Wish as I may, it *must* come so; and nothing can help it." Thereupon she laid herself to rest and the whole night long she dreamed of the young apprentice. When she awoke the next morning, she knew his face by heart, for she had seen it so often in her sleep—and a trim fellow he was, there could be no doubt about that.

The apprentice had slept well and soundly upon his litter of straw; dream-beech and dream, everything he had said to the daughter of the landlord the evening before was long since forgotten. He was standing at the door of the tavern and was about to give his host his hand in parting. Just then the daughter entered, and as she saw him standing there ready to leave them, a strange feeling of dread came over her, a feeling as if she could not let him go. "Father," she said, "the wine has not been drawn off yet and the young fellow hasn't anything to do; if he would stay with us a day, he might earn his meals and a penny or two to help him on his way." The landlord of the Golden Crown had nothing to say against this, for he had just eaten a hearty breakfast and had had quite enough, and that was the best time of day for him.

But it was slow work with the wine. There was always this and that to be done, and the daughter always found something to bring the apprentice up from the cellar. When the great tun was empty and all the bottles filled, she said it would be just the thing for him to help in the fields a while; and when that was over with, there was all manner of things to be looked after in the garden—things that nobody had ever thought of before. And in this way week after week passed away, and every single night the maiden dreamed of the apprentice. In the evenings she would sit with him in the arbor before the house, and when he told of his mishaps and misfortunes among the strange peoples he had visited, a gnat or midge would always get into her eye and she would have to rub it out with the end of her apron.

A year had passed away, and the apprentice was still at the house of the landlord of the Golden Crown; everything was scoured and polished, white sand had been strewn upon the floors, and ever-green palm branches scattered about the house; the whole village was keeping holiday. For to-day the travelling apprentice was to marry the daughter of the landlord of the Golden Crown; and if any one, because of envy, did not rejoice in heart, he at least made everybody believe that he did.

\* \* \*

Not long after, as the landlord of the Golden Crown sat quietly smoking in his great arm-chair, he fell into a deep and peaceful sleep; and as he did not awake again, they came to rouse him. But his eyes had closed forever.



The young apprentice had to take charge of the inn, and really did become landlord as he had said in jest, and everything else turned out just as he had dreamed it under the old beech-tree. For the two children soon came, and I suppose he must have taken one of them in his lap some time or other and fed it, and blown into the spoon too, and of course the other one ran about the room with the carrot, although the man I got this story from, did not say that he did and I had really forgotten to ask him about it especially. But it must have been so, for everything that people dreamed of under the old beech-tree came out to a dot.

One day—it might have been four years after the day of the wedding—the young landlord of the Golden Crown was sitting in the public-room of the inn. His young wife came in and going up to him, said: "Just think, love; yesterday noon one of our harvest-men fell asleep under the Beech-Tree. Guess what he dreamed? He dreamed he was rolling in gold. And it was foolish old Caspar too, that everybody is so sorry for, and whom we keep only out of pity. What will he do with all his money?"

Then the husband laughed and said: "How can you believe all that silly nonsense? You are so sensible in other things. Just think for a moment whether a tree can know anything about what is going to happen, and if it be ever so old and so beautiful."

The wife looked at her husband aghast; then she shook her head and said gravely: "Husband, do not scoff. You should not jest about such things."

"I am not jesting, wife!" said the husband.

At that the wife was silent for awhile, as if she did not understand him quite, and then she said: "O, why do you say so! I should think you had every reason to be thankful to the blessed old tree. Has not everything come, as you dreamed it?"

When she said this, the husband made the pleasantest face in the world and replied: "God knows that I am thankful—thank Him and thee. It was indeed a pretty dream. It is as if it were but yesterday, so well do I remember it. And a thousand times more beautiful than in my dream has everything come out; and a thousand times more sweet and beautiful art thou, my love, than the wife I saw in my dream beneath the beech-tree."

Again the wife looked at her husband with open eyes as he went on: "But as to the tree and the dream I dreamt, my sweet one—why, surely it was nothing wonderful for me to dream once of happiness, when I had fared so ill among the strange peoples I had visited."

"But you dreamed that you would marry me though!"

"I never dreamed that! It was only a young woman

with two children that I saw, and she wasn't near so pretty as you are, nor the children either."

"Fie!" cried his wife. "Are you going to disown me, or the tree? Didn't you tell me the first day I saw you—it was in the evening out in the arbor—didn't you tell me you dreamt you would marry me, and one day become landlord of the Golden Crown?"

The husband thought, for the first time since, of the jest of that evening, and he said: "It can't be helped, dear wife! Really I didn't dream of you then; and when I said I did, it was only in jest. You were so inquisitive and I wanted to tease you."

His wife broke out into bitter tears and went out into the open air. After awhile he went after her. She was standing by the well in the court-yard and was weeping still. He tried to comfort her, but in vain.

"You have stolen my love and robbed me of my heart," said she. "I shall never again be happy."

Then he asked her if she did not love him, love him as she loved none other on earth, and whether they had not lived contentedly and happily together, as had none other in their village. She said yes to it all, but still she was as sad as before, despite all his comforting.

So he said to himself: "Let her have a good cry; other thoughts will come to her over night; she'll be the same as ever to-morrow." But he deceived himself; for on the morning after, his wife did not cry any more it is true, but she was solemn and sad, and tried to avoid her husband. It was of no use to try to comfort her; every attempt failed, as it did the evening before. The best part of the day she sat brooding in the corner, and started with fright if her husband approached her.

When this had lasted several days without any change whatever, a great sorrow took possession of him too, for he feared that he had lost the love of his wife forever. In silence he walked the house, thinking and thinking of what could be done, but nothing seemed to come to him. So one day at noon-tide he walked beyond the village and sauntered through the fields and meadows. It was a hot day in July; not a cloud in the skies. The ripened corn surged like an ocean of gold and the birds were singing merrily; but his heart was laden with sorrow. In the distance he could see the old beech-tree standing: like a monarch among trees, it towered high into the heavens. It seemed as if it were nodding to him with its great green branches, were calling to him as to a friend of long ago. He went and seated himself beneath it; and thought of the times that had passed. Five years had gone by since the poor apprentice had first rested beneath its branches and dreamed so wondrously. How beautiful! And the dream had lasted for five years—and now? All was over!—All over?—Forever?



The beech-tree began to rustle, as it had rustled five years before, and again it swayed its mighty boughs. And just as before, there fell here and there through the waving leaves rays of glittering sunshine, and here and there a particle of the blue sky beyond shone through upon him. His heart was quieted, and he fell asleep; for he had not slept for worry during the past few nights. And it was not long before he dreamt the dream of five years before; but now the wife at the table and the children playing about it were the dear familiar faces of his wife and his children. And his wife was looking at him so kindly—so kindly!

He awoke, but when he saw that it was only a dream, he grew sadder still. He broke off from the tree a little green branch, and went home, and placed it in the hymn-book.

The next day—it was Sunday—as his wife was about to go to church, the branch from the beech-tree fell out. At this her husband, who was standing near her, blushed, and stooping down to pick it up, he tried to stick it in his pocket. But the wife saw it and asked him what the leaf was.

"It is from the Dream-Beech; it wishes me kinder fortune than you do!" said the husband. "For yesterday, as I was sitting beneath it, I fell asleep. It wanted to comfort me; for I dreamed that you were again kind to me and had forgotten all. But it is not true! There is no virtue in the good old Beech. A great and beautiful tree it is, but of the future it knows nothing."

At that his wife stared upon him, and then the sunshine played in her face: "Husband, did you, did you really dream that?"

"Yes," he answered firmly, and she saw that it was the truth, for his face quivered in keeping back the tears.

"And I was really your wife?"

When he said yes to this too, the wife fell upon his neck and kissed him so often and so fervently that he could not resist her. "Now God be praised," she said, "for all is well again! I love you so, indeed I love you as you cannot know. And how I've suffered from the dread that God might not want me to love you and that perhaps He had wanted me to marry some other man! For you did steal my heart, you bad man, and you did cheat me a little. But now I know that it didn't do you any good, for it would have turned out so anyhow."

At this, she was silent a moment, and then she said again:

"But you will not say anything bad about the Dream-Beech again, will you?"

"No, never; I believe in it now. May be not the same way that you do, but just as firmly though. Trust me!"

"So let us fasten the branch in the front part of the hymn-book. We must not lose it."

#### THE OLD AND THE NEW MATHEMATICS.

IN mathematics, just as in all sciences and in religion, we have an orthodoxy sanctioned by the authority of many centuries. This orthodoxy represents a conception of things, which in the past, to some extent, has proved sufficient for our needs. It is presented in the most direct, and for its purpose therefore in the best method—namely in the shape of dogmatism. Thus matters are, we are told, and it suffices to know that they are so. Dr. Brooks says: "Shall we not be content and let 'well enough alone' and rest with absolute certainty on the deduction of the present system of geometry?"

The representatives of orthodoxy are opposed by a class of heretics, who claim that humanity would have progressed more rapidly but for the impediments of dogmatism. The ideas of dogmatism, they say, are fundamentally erroneous, and must be overturned. Room must be made for doubt. Humanity, up to the date of the appearance of heretical views, it is held, has been erring under the dominance of orthodoxy, and we must commence to live the life of mankind over again.

These heretics, tearing down and criticizing the old dogmatism, are by no means useless, or nefarious, or dangerous men, although they are very often looked upon as acting the rôle of Mephistopheles and although, as a rule, they exhaust their power in mere negations without being able to build anew. Voltaire said: "If God did not exist, we should invent him." Similarly we can say: "If the devil did not exist, we should invent him." "The spirits who deny" play a very important part in the household of nature.

"Man's aspiration flagging seeks too soon the level,  
Unqualified repose he learns to crave;  
Whence, willingly, the comrade him I gave  
Who works, excites, and must create as Devil."

The negative criticism of heresy leads the orthodox conception to a higher plane of development, not by tearing down, but by forcing us to remould it, to eliminate its errors, and thus to unify its tenets with the other facts of reality. If we really had to commence to live the life of humanity over again, we would again have to start with the old or a similar dogmatism, until we were sufficiently matured to enlarge our views to a broader conception, in which our former orthodoxy is not so much destroyed as outgrown.

Dr. Brooks represents the orthodox standpoint of mathematics. He dogmatically believes in the finality of mathematical axioms; he says: "To know how we know the axioms to be true would be equivalent to proving them to be true." But he does not believe that we can know this *how*. "There is no 'how,'" he says. \* \* We just know that they are true and tha



is the end of it. \* \* To prove a truth is to establish it by some other truth; but there are no truths back of or before these axiomatic truths which authenticate them. They are absolutely first truths, underived and self-existent, and as such are cognized by the mind."

This standpoint of orthodox dogmatism in mathematics may be called the intuitive method. In opposition to it John Stuart Mill proposes his heterodox views, which are best characterized as the empiricist method. Mr. Mill says in his *System of Logic* (2, V, Sec. 1):

"The points, lines, circles, and squares which any one has in his mind, are (I apprehend) simple copies of the points, lines, circles, and squares which he has known in his experience. The idea of a point I apprehend to be simply our idea of the *minimum visibile*, the smallest portion of surface which we can see. A line as defined by geometers is wholly inconceivable."

If Mr. Mill's empiricism were correct, mathematics would be an experimental science, like chemistry and the other natural sciences. There would be no difference between formal sciences and experimental sciences, and such things as necessity or necessary truths would be illusions. Mr. Mill accepts this consequence and tries to eliminate "necessity." He says:

"This character of necessity, ascribed to the truths of mathematics, and (with some reservations to be hereafter made) the peculiar certainty, attributed to them, is an illusion. \* \* \*

"When, therefore, it is affirmed that the conclusions of geometry are necessary truths, the necessity consists, in reality, only in this, that they correctly follow from the suppositions from which they are deduced. Those suppositions are so far from being necessary that they are not even true; they purposely depart, more or less widely, from the truth. The only sense in which necessity can be ascribed to the conclusions of any scientific investigation, is that of legitimately following from some assumption, which, by the conditions of the inquiry, is not to be questioned."

According to Mr. Mill, our mathematical conceptions "are not even true; they purposely depart, more or less widely, from the truth." They certainly would depart from the truth if mathematics were an experimental science, if mathematical lines were images of material lines, perhaps of lead-pencil lines, if mathematical points were truly a *minimum visibile*, etc. Mathematical concepts depart from the real diagrams which we draw for the purpose of assisting our mathematical imagination, but they do not, therefore, depart from the truth.

If Mr. Mill's theory were correct, if mathematics were not a creation of pure formal thought, invented for properly comprehending the laws of pure form, if it were based upon the inaccurate, unreal, and, therefore, untrue images of material points, lines, circles, planes, etc., we would have to remodel the whole science of mathematics so as to make our conceptions of points and lines and planes "true." But an experimental mathematics of that kind, it need not be said, would lose all its value, its certainty, and its ex-

actness. Indeed, as a system of purely formal laws, it would be "untrue"; for it would conflict with the principle of mathematical conceptions that limits the field of mathematics to pure forms and excludes from it any kind of material existence.

The basis of mathematics is pure formal thought. The pure form of a thing is the spacial relation of its parts among themselves. The pure form of a leaden ball is its globular shape. Mathematics, accordingly, deals with the laws of spacial relations purely, without taking into consideration anything else. All other qualities, especially those relating to matter and force, are rigidly excluded.

Dr. Brooks says: "Some things not only exist but their existence is a necessity. They exist independently of all conditions and are subject to no contingencies." Among these things, time, and space, and axiomatic truths are classed. The paper, he says, "has length, breadth, and thickness; length, breadth, and thickness are possible only in space, therefore space also exists."

Certainly space exists, but it does not exist of itself. It has no absolute existence. It exists as a property of reality, and our conception of space has been abstracted from reality. "Length, breadth, and thickness," we propose to say, "are space." If we say with Dr. Brooks, they "are possible only in space," the dualistic error is near at hand, that space is not a mere abstract idea representing the quality of extension abstracted from extended things, but that it is something existing of itself; something which is the condition of extension, which makes it possible that things can have length, breadth, and thickness.

Space being an abstract and not a thing of itself has been supposed by some philosophers to be a non-entity. Descartes says,\* that if that which is in a hollow vessel were taken out of it without anything to fill its place, the sides of the vessel, having nothing between them would be in contact. This is erroneous. Space is not a non-entity, but a real property of things. The spacial relation between two sides of a hollow vessel remains the same whether there is or is not any matter between them. If we could succeed in annihilating the whole world, all spacial relation would be destroyed with it. But let there be one atom only, or one given point, where in our imagination we may place ourselves, and we will therewith establish a possibility of motion in all directions, and the possibility of constructing in our imagination other points in different distances or relations: we would have space—not a part of space, but space entire. Space being the possibility of motion, is determined by measurable relations, in which existences or possible existences or points can be arranged. A part of

\* Princip. Phil. II. 19.



space, alone and absolute, can neither be created nor can it be annihilated; for space being of itself a mere possibility of relations, is always entire. Thus the minutest part of a parabola contains the law of the whole parabolic curve into infinity, and so with the slightest part of space the whole of space is determined.

The old orthodox view of mathematics takes its stand on axioms (such as "a straight line is the shortest distance between two points"), which are accepted as self-evident truths. Among the simplest mathematical theorems is one stating that "the corresponding angles of parallels cut by a straight line are equal." Since an exact proof of this theorem was impossible, it has found a place among the axioms, and is in our textbooks usually treated as such.

Some mathematicians, however, did not rest satisfied with this solution of the Gordian Knot in the fashion of Alexander, and attempted to develop a geometry in which the theorem of corresponding angles should not be accepted as an axiom. They succeeded in establishing a new kind of geometry which was different from Euclid's geometry. Two straight lines cannot inclose a space according to Euclid; but in the new geometry, two straightest lines, if sufficiently prolonged, can inclose a space. To distinguish them from Euclidian "straight lines," it has been proposed to call them "straightest lines," both (straight as well as straightest lines) being the shortest possible distance between two points.

This new geometry has been called that of curved space, and further investigations\* showed that there are two kinds of curvature, the positive and the negative. The positive may be represented as the convex surface of a globe and the negative as the concave surface of a hollow globe. The Euclidian theorems now appeared as special instances of this geometry. They can be considered as constructed in a plane the curvature of which is zero.

We learn from the attempts made in this direction that the mathematical axioms are by no means "absolutely first truths, undervived and self-evident." They depend upon the special condition that the space curvature is zero, which (however justified for practical purposes) has been tacitly assumed.

\* \* \*

We can generalize the concept space and consider the line as a space of one dimension, the plane as a space of two dimensions, and actual space as a space of three dimensions. It is impossible to form any intuitive conception of a space of four and, still less, of more than four dimensions. Nevertheless, we can abstract from dimensions altogether and conceive of such absolute space as 'Form, pure and simple.' In doing so we can lay down the laws which are equally valid for

all kinds of spaces, whether of three, or four, or  $n$  dimensions. Algebra, indeed, is an abstraction of that kind, and algebraic laws are equally valid whether their symbols indicate lines, or planes, or solid bodies, or other things, as for instance logical concepts.

The ultimate step which can be taken in this direction is that of establishing a "theory of pure forms," as has been done by Grassmann. Grassmann recognizes no axioms whatever. He builds his "system of pure forms in general" and finds that Euclid's geometry, as well as the actual space of three dimensions, are special cases only of innumerable other possibilities, the laws of which are all contained in his "theory of forms in general." What Euclid called axioms are a few characteristic features which can be derived from the supposition that plane geometry is a system of second degree. Far from being first, or absolute, or independent truths, the axioms depend upon this supposition, and are applicable only for cases where it is avowedly accepted or at least tacitly assumed.

Grassmann no longer stands alone in the position he has taken; he has found followers who more and more realize that he has been the pathfinder of a new and fertile field of mathematical investigation. The ultimate basis of mathematics is no longer the intuition of space but the conception of "abstract form in general." The apriority of the mathematical laws of actual space has to be limited to the extent, that we can know by experience only that actual space has three dimensions, and we have learned to consider the world-space as one actual instance among many theoretical possibilities: it is a formal system of third degree.

Actual space, abstracted from reality, is a quality of real things representing their relations, the relations of their parts, and the possible directions of their motion. But actual space, as we can ascertain by experience, is at the same time a system of third degree. As a system of third degree, it is a creation of our mind, it is purely formal thought, to which all the rigidity and universality of formal laws is attached. The sentence "space is a system of third degree," is as little tautological, or begging the question, as that the earth is a spheroid; and it is at the same time just as much a matter of experience. The laws of a system of third degree apply to actual space with the same necessity\* as the principles of mathematical geography apply to the earth.

\* \* \*

Dr. Brooks says: "Some truths are not only true, but they are necessarily true," and "the mind has the power of knowing that they are necessarily true."

That gunpowder explodes is true; but it is not necessarily true. In damp weather it may not explode; the explosion depends upon certain conditions. But if all the conditions upon which, according to our

\* We mention the names of Lobatschewsky, Bolyai, Gauss, and Riemann.



experience, the result is contingent are fulfilled, we assume that it will explode. It ought to and very likely it will; but must it necessarily explode? Certainly not! There may be one condition which in all former cases was always fulfilled without our knowing it. If this one condition were absent in an eventual experiment the usual result would *not* take place. The results of experimental sciences are never necessary in this rigid sense. Rigid necessity does not depend upon conditions; it is intrinsic and we must be able to verify it as a necessity; we must know why or how it is a necessity, not by intuition, but by proof.

All formal truths are rigid necessities. Propositions, as for instance  $2 \times 2 = 4$ , and  $(a + b)^2 = a^2 + 2ab + b^2$ , possess intrinsic truth; for they do not depend upon external conditions, and hold good everywhere and for all possible cases.

For the sake of distinction, the truths of purely formal thought are called *correct*, and the truths of a well-ascertained experience *real*. Correct, accordingly, signifies that which is true in a mere formal sense, and real (in this limited sense) signifies that which has a material existence. Mr. Mill, therefore, in the above quoted passage, should have said that the mathematical suppositions are not realities (*viz.*, realities in the limited sense). They are not material existences. But that is no reason for declaring that they depart from the truth. If they are but correct, they are true; they are true so far as their form is concerned. By correctness we cannot gain substantial knowledge of things, but the correctness of our formal thought alone can afford that necessity, by means of which any kind of truth is established. Without the assistance of arithmetic, mathematics, mechanics, and logic, scientific knowledge cannot be obtained.

The assumption of Dr. Brooks that there are necessary truths, of which the mind has the power of knowing by intuition that they are necessarily true, would lead us back to the conception of "innate ideas." If we are not bound to explain why or how certain ideas are true, there is no means of discriminating between inveterate or inherited errors, and genuine truths.

The existence of the material universe is by no means necessary; nor is it necessary that actual space has three dimensions. We can imagine that we did not exist and that the whole world did not exist; we can imagine that a world existed, the space of which would possess two dimensions. But we cannot think it possible that  $2 \times 2 = 5$ ; and we can positively understand why the laws of form in general must hold good under all conditions and in all possible worlds. If they were never realized in actual existences, they would nevertheless remain what they are—correct.

\* \* \*

In the province of mathematics we move in an at-

mosphere of abstract thought. The simplest mathematical conceptions are by no means so absolutely simple as they appear; they are simple only in comparison to other mathematical ideas, to definitions of, and theorems about, complex figures. A bright little boy of six years may have very clear conceptions as to dogs, horses, and even engines or other concrete things, but there is little probability of his understanding the meaning of a mathematical point. That simple idea is too complex for his immature comprehension.

Dr. Brooks says:

"A derivation of one truth from one or more other truths is called reasoning. \* \* \* All reasoning can be traced back to truths which cannot be derived from other truths, and hence are not the result of reasoning."

According to our view the basic conceptions of mathematics and the axioms so-called, are the result of reasoning. They are not first truths from which we start quite from the beginning; they are not self-evident in the sense that there are no truths back of or before them; but we acquire them after a long exercise in mental work only. They are based upon a well-directed and disciplined discrimination. This discrimination between form and matter, simple though it appears to us now, is most subtle, and its importance is invaluable. It enables us to construct systems of, and to evolve the laws pertaining to, formal thought. This discrimination between form and matter is, therefore, the commencement of a higher development; it makes scientific thought possible.

The correctness of formal knowledge was formerly based on axioms which had to be taken on faith. But as long as the certainty of axioms is based upon intuition, mathematics (and all other formal sciences) must appear to hover in the air and have no connection with the solid facts of reality. Mathematicians, it is true, rarely were inclined to foster mystic views (Cabalistic and Neoplatonic mathematicians are exceptions), and Dr. Brooks also repudiates any kind of mysticism. Nevertheless as long as a science is ultimately based on intuition, there is room for any degree of mysticism. Grassmann's broader conception of mathematics has made all mysticism impossible. He has taught us to dive down to the bottom of the problems, where we can understand the origin and whole growth of mathematics and where they are seen to be in connection with the other facts of reality.

\* \* \*

For our present purpose we are satisfied with having pointed out the connection which obtains between mathematics and the other facts of reality; but we may add for those interested in the philosophy of mathematics, that from Grassmann's standpoint the connection, also, that exists between the different mathematical theorems and solutions is more readily under-



stood. Hamilton's quaternions and the significance of imaginary quantities have been anticipated by Grassmann and appear in their connection with his system in a new light. Grassmann's method allows a survey of the whole field and thus gives to the student that easy freedom which a traveler feels who constantly keeps in sight the point towards which he is journeying, as well as the road on which he approaches it.

Grassmann says\*:

"Since both mathematics and philosophy are sciences in the strictest sense of the term, the methods employed in each must accordingly have something in common, which gives them their peculiar scientific character. Now, we give a scientific character to a method of treatment when the student, on the one hand, is of necessity led by it to the recognition of every single truth, and on the other hand is placed in a position wherefrom he is enabled, at every point in the development, to survey the course of further progress.

"The indispensableness of the first requirement, *viz.*, scientific rigidity, every one will admit. As to the second, the same remains a point that is not as yet sufficiently recognized by the majority of mathematicians. Demonstrations are frequently met with, where, unless the theorems were stated above them, one could never originally know what they were going to lead to; here, after one has followed every step, blindly and at haphazard, and ere one is aware of it, he at last suddenly arrives at the truth to be proven. A demonstration of this sort, perhaps, leaves nothing more to be desired in point of rigidity. But scientific it certainly is not. The second requisite is lacking—namely, the power of survey. A person, therefore, that goes through such a demonstration, does not attain to an untrammelled cognizance of the truth, but he remains—unless he afterwards, himself, acquires that survey—in entire dependence upon the particular method by which the truth was reached. And this feeling of constraint which is at any rate present during the act of reception, is very oppressive for him who is wont to think independently and unimpededly and who is accustomed to make his own by active self-effort all that he receives. If, however, at every point in the development, the student is put in a position to see at what he is aiming, he remains master of his material, he is no longer bound to the particular form of presentation, and his assimilation of what he attains becomes actual reproduction."

P. C.

### "THE MARRIAGE PROBLEM."

BY LOUIS BELROSE, JR.

Faith is the substance of things hoped for, the evidence of things not seen.—HEB. XI. 1.

Let us have faith. The substance of things hoped for  
Outlasts the shadow of the things not seen.  
Let us have faith. The Word the worlds were framed by  
Framed our ideals and will keep them clean.

Let us have faith. That Word, all hearts shall hear it.—  
For us the time is long, but time is short.—  
Let us have faith, and thereby, like the elders,  
Obtain for recompense a good report.

Let us have faith, despite the mind's invention,  
To hold the way that man and brute have trod.  
Let us have faith in their unfailing instinct  
Who made the virgin mother of a God.

\* Grassmann, "Die lineale Ausdehnungslehre, ein neuer Zweig der Mathematik," Introduction, page xxxi.

### SONNETS OF WINTER-TIDE.

MARY MORGAN (GOWAN LEA).

I.

THROUGH night's dark hours the snow fell, feathery light,  
Until at break of morn, afar and near,  
No leaflet is descried nor brooklet clear,  
So close the earth is wrapped in mantle white.  
Round yonder hill the snow-plough comes in sight,  
Disclosing where the high-road should appear,  
Tossing the white wreaths o'er the landscape drear,  
Like waves before a ship, to left and right,  
Symbolic picture of the march of mind—  
Agent invisible—which yet doth know  
Earth's proud wealth to dispose—philosophy  
And art, and poesy—what it shall find  
Upon its course as forward it may go,  
New vistas opening for humanity!

II.

"Death is perhaps the last superstition."—Heine.  
I READ the secret of the earth and air,  
Concealed—revealed—in frozen twig and leaf,  
As surely as in Spring-tide's blossom brief:—  
Death opens Life's door, alway, everywhere.  
The bud we call 'To-day,' fresh, fair, and sweet,  
Roots in dead Yesterday, and fades from view  
Yielding To-morrow—Mount of purple hue  
Whose peak aspires the highest heaven to greet.  
Decay and growth! A prophecy is each,  
One of the other, in unbroken chain.  
Distrustful human heart, how shalt thou reach  
The knowledge that they are but aspects twain  
Of the imperishable Substance—Life!  
This truth attained, O soul, shall end thy strife!  
MONTREAL, February 4, 1889.

### THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

CHAPTER XXX.—Continued.

But the spirit of torment that had quartered itself under the roof of the castle did not confine its tricks to the Court and its household; it ventured to disturb the Professor also in his learned work.

Ilse was sitting alone, looking absent-mindedly at the pictures of Reynard the Fox, when the lackey threw open the door, announcing:

"His Highness, the Sovereign!"

The Sovereign glanced at the picture in the open book.

"So that is the view you take of our position. The satire of those pages is bitter, but they contain imperishable truth."

Ilse closed the book, coloring.

"The ill-behaved beasts are rude egotists; it is otherwise among men."

"Do you think so?" asked the Sovereign. "Those who have had experience with them will not judge so leniently. The two-legged animals that pursue their aims at the courts of princes are, for the most part, as reckless in their egotism, and as much inclined to

\* Translation copyrighted.



profess their attachment. It is not easy to restrain their pretensions."

"Amongst the bad there are surely some better, in whom good preponderates?" rejoined Ilse.

The Sovereign inclined his head civilly.

"He who has to watch all keenly feels the narrow-mindedness of every individual, for he must know where and how far he can place confidence. Such an observation of various natures, which is always seeking to separate the reality from the glitter, to sound the worth of different characters, and to retain for the observer superior judgment, sharpens the perception of the deficiencies of others. It is possible that we may sometimes judge too severely, while you, with your warm feeling, fall into the amiable weakness of viewing men in too favorable a light."

"My lot, then, is happier," exclaimed Ilse, looking at the Sovereign, with honest commiseration.

"It is sweeter and happier," said the latter with feeling, "to give one's self up without restraint to one's feelings, to associate innocently with a few whom one chooses freely, to avoid by slight effort the ill-disposed, and to open one's heart gladly, and without restraint, to those one loves. But he who is condemned to live in the cold atmosphere of business, struggling against countless interests which clash together, can only carry on this existence by surrounding his daily life with regulations which will at least preserve him from overwhelming burdens and annoyances, and compel the foxes and wolves to bend their stubborn heads. Such rules of Court and government are not perfect work; there will often be complaints against them. You, perhaps, may have had occasion to remark that the customs and etiquette of a Court are not without harshness; yet they are necessary, for it makes it easy to us to withdraw and keep within ourselves, and maintain a certain isolation, which helps us to preserve our inward freedom."

Ilse looked conscious.

"But believe me," continued the Sovereign, "we still are human beings; we would gladly give ourselves up to the impulse of the moment, and live without restraint with those whom we esteem. We must often sacrifice ourselves, and we experience moments when such sacrifices are very severe."

"But within the princely family itself these considerations do not apply," exclaimed Ilse. "The mutual intercourse of father and children, brothers and sisters,—these holy relations can never be disturbed."

A cloud came over the countenance of the Sovereign.

"Even they suffer in their exposed position. We do not live together; we see each other less alone, generally under the observation of others. Each has his special circle of interest, is influenced by those

about him, who perhaps diminish his confidence in his nearest relations. You know my son; he has all the qualifications of a good, open-hearted man, but you will have observed how suspicious and reserved he has become."

Ilse forgot all caution, and again felt a little proud of being a confidante.

"Forgive me," she explained; "I have never found that. He is only bashful, and sometimes a little awkward."

The Sovereign smiled.

"You lately expressed an opinion with reference to what would be advantageous for his future. That he should for a time become acquainted with the management of a large family estate; it would undoubtedly be good for him to learn the work of a country gentleman by experience. Besides this, he is not happy at Court."

Ilse nodded.

"Have you also remarked that?" asked the Sovereign.

"I will give good advice for my Prince," thought Ilse, "even if it is not quite agreeable to him. May I venture to say," she said aloud, "that this is the best time of all. For he must learn, your Highness, the spring tilling, which is in full operation, so there must be no delay."

The Sovereign was much pleased with this zeal.

"It will not be easy to find a place," he said.

"Perhaps your Highness has an estate in the neighborhood where there is a small manor-house."

"Then he could come often to the city," replied the Sovereign sharply.

"That would not do," continued Ilse, eagerly. "He must first thoroughly know the work of the people, and for that be constantly in the fields."

"I could not find a better adviser," said the Sovereign, in excellent humor. "There is nothing in the vicinity that will answer; I have thought, however, of your father's estate."

Ilse started with surprise.

"But our mode of life is not adapted for the accommodation of a prince," she replied with reserve. "No, gracious Sovereign, the domestic arrangements of our family would not be suitable to the pretensions of the young man. I say nothing of other considerations which formerly never occurred to me, and which have first come home to me here. Therefore, if I may speak what I feel, I am of opinion that this, for many reasons, will not answer."

"It was only a thought," replied the Sovereign, good-humoredly. "The object may perhaps be attained without encroaching upon your father. It has been my wish," he continued, with chivalrous politeness, "to give you and your father a public proof of



my esteem. I have special reasons for it." He looked significantly at Ilse, and she thought of the birthday of the Princess.

"I know the reason," she said softly.

The Sovereign drew his chair near.

"Your father has a large family?" he asked. "I have a vague recollection of having seen several rosy-cheeked boys about."

"They were my brothers," said Ilse, laughing; "they are handsome little fellows, gracious Sovereign, if I, as a sister, may praise them; they are at present somewhat uncouth, but good and clever. My Franz wrote to me only yesterday to beg me to greet your Highness for him. The little urchin thinks it is the right thing. Now, as I have the opportunity, I will show you the letter as he has written it; it is a stupid, childish message, but it comes from a good heart."

She felt in her pocket and brought forth a letter written in fair characters.

"See, your Highness, how well the child writes. But I must not show you the letter, for your Highness would find in it a confirmation of your opinion, that men have always selfish wishes in the background when they think of their princes. The poor boy also has his wish."

"Then let us have it," said the Sovereign.

Ilse showed him the letter; the Sovereign graciously took hold of the letter, and in doing so, his hand rested on hers.

"He is so barefaced as to ask your highness for an india-rubber ball. The ball is already bought."

She jumped up and brought a gigantic colored ball.

"This I shall send to him to-day, and I shall write to him that it is not seemly to beg of so great a personage. He is nine years old, but still very childish—your highness must forgive him."

Enchanted by this frank open-heartedness, the Sovereign said:

"Write to him, at the same time, that I wish to tell him he must endeavor to preserve through the dangerous paths of life the pure feeling and loyal spirit of his eldest sister. I also feel how great is the blessing of your character to all who have the happiness of breathing your atmosphere. In a course of life which is filled with harrowing impressions, in which hatred and suspicion take more from the peace of the soul than hours of repose can restore to it, I have still retained my susceptibility for the innocent freshness of a mind like yours. You give me genuine pleasure."

Again he laid his hand gently on hers; Ilse looked down confused at the praise of her dear Sovereign.

A hasty step approached; the Sovereign rose, and the Professor entered. He bowed to the Sovereign, and looked surprised at his wife.

"You are not ill?" he exclaimed. "Pardon, gra-

cious Sir, I came in great anxiety about my wife. A strange boy rang the bell at the Museum, and brought a message that I must go immediately to see my wife, as she was ill; fortunately it was a mistake."

"I am thankful for the error," replied the Sovereign, "as it gives me the opportunity of saying to you what I was intending to mention to Madame Werner; orders have been given at the stable that a carriage shall be ready for you at any hour that you wish to take a journey in the neighborhood to pursue your mysterious investigations."

He took leave graciously.

The Sovereign opened the window of his study; the air was sultry, the sun had been shining long upon the earth; now it had vanished, heavy clouds rolled themselves, like great shapeless porpoises, over the city and castle. The Sovereign fetched a deep breath, but the heavy, sultry air forced the smoke from the chimneys of the castle down to his window, enveloping his head like a great mist. He hastily opened the door of the gallery which led to the reception-rooms, and walked out. Against the walls hung a row of oil pictures, the portraits of beautiful ladies whom he had once favored with his attentions. His look strayed from one to the other; at the end of the row was an empty place; he stopped before it, and his fancy painted a picture with blonde hair, and a true-hearted, frank light in the eyes, more touching than any of the other faces.

"So late," he said, to himself. "It is the last place and the strongest feeling. They are fools who tell us that years make us indifferent. If I had come across her at the other end," he glanced back along the gallery, "at the beginning of my life, when I yet looked longingly at the roses on the cheeks of maidens and was touched by the song of hedge-sparrows, would such a woman then have preserved in me what I have lost forever? Useless thoughts of the past! I must in the present keep firm hold of what has come within the reach of my hand. She is indifferent about the weak youth; but she feels herself uneasy here, and if she tries to escape me I have no power to keep her back. I remain alone; daily the same wearisome faces, whose thoughts one knows before they are spoken, whose wishes one knows before they open their mouths, and whom one sees to be prepared with feigned feelings. Whatever wit or will they have works secretly against me; what I receive from them is only the artificial glitter of life. It is sad to be a master before whom living souls turn into machines, and year after year to open the lid and examine the works. I myself have made them," he said, jeeringly, "but I am weary of my work."

(To be continued.)



## BOOK REVIEWS.

THE COUNTRIES OF AUSTRIA-HUNGARY.\* Descriptive and Picturesque. CROATIA AND SLAVONIA, by Dr. Friedrich S. Krauss. BOSNIA AND HERZEGOVINA, by Dr. Moritz Heunes. Vienna: 1889. Karl Gräser.

The two little books, in German, above noted, are the fourteenth and fifteenth volumes of a highly interesting series of works upon the various peoples forming the body of the Austro-Hungarian monarchy. No one of the great nations of civilized Europe, perhaps, is less studied in our country than the checkered realm ruled over by the Hapsburg dynasty; yet no country, whether in its historical and political, or in its social and ethnical features, presents such a diversified and fascinating field for the student of universal history. Here the Orient and the Occident meet. The marks of the ancient world, of Byzantium and of Rome, still stand uneffaced by the side of the broken remnants of modern Ottoman civilization. Slave and Magyar, Teuton and Czech, rub uneasily together in this vast conglomerate of migrated nations. Austria-Hungary is the ground where opposite civilizations join and blend, and deserves, from a social and ethnological point of view, the same attention that its imposing dynastical career has met with from the student of political history.

The volume by Dr. Krauss is especially interesting. The civilization, literature, and folk-lore of the Croatian and Slavonian peoples are the result of unique historical and geographical influences. The customs and religious superstitions of the peasantry are survivals of different epochs and changes in the current of national life—a rich field of research for students of folk-lore. The descriptions of Dr. Krauss are remarkably comprehensive, when we regard the size of the little work. The author belongs to a distinguished Hebrew family of scholars in Central Europe. The work upon Bosnia and Herzegovina is similar in scope and plan to that upon Croatia and Slavonia, having the additional interest of treating a subject not so well-known, and engaging our attention more, perhaps, on account of the recent occupation of these little lands by the forces of the Austrian empire. The late Crown Prince Rudolph took a prominent part in the editing of this series.

μυρο.

TURGOT. *Léon Say*. Translated by Melville B. Anderson. A. C. McClurg & Co., Chicago.

This is the fifth volume in a series of works, of mingled critical and biographical order, on "The Great French Writers." M. Say's work is written with great sympathy and intelligence, and presents us with a portrait of one of the most interesting characters of the period of the French revolution, one who shared neither the wild hopes of its extreme advocates, nor the condemnatory opinions of more timorous and conservative minds. Turgot is generally described, even by those who admire and wish to do him entire justice, as a failure; his non-success as statesman and economist being ascribed to the troubled condition of the times which would not permit a restless and suspicious populace to accept any leader for a long period. M. Say wishes to make it clear that he does not look upon Turgot in this light, and would "treat him not as defeated but victorious," calling him the founder of our present political economy, meaning, as he says, the French, for it would be difficult to say just what that science is at present in this country, though we may agree with the writer, the present century, being one of industry and "the application of great scientific, geographical, economic discoveries to the development of labor and wealth." Turgot did great service to the general cause of social progress by his teachings respecting the worth of labor.

C. F. W.

\* Die Länder Oesterreich-Ungarn's in Wort und Bild. *Avantien und Slavonien, Bosnien und Herzegovina*.

DIE DEUTSCHEN VOLKSLIEDER UND MÄRCHEN. Zwei Vorträge von Karl Knortz. Zürich: 1889. Verlags-Magazin.

Karl Knortz, the well known German translator of American poetry, dedicates these two lectures on German popular songs to German-Americans who, he hopes, will be good American citizens but at the same time preserve and cherish the literary treasures of their fatherland. It is their mission, he says, to cling to the humanitarian ideals of their great poets. An appendix contains about twelve German translations of popular ballads of Yorkshire.

The *Art Amateur* for February is especially full of information of a technical character which must be very useful to young amateurs. Mr. Kellogg continues his letter to a young China painter, which are very full and suggestive, and there are four articles of interest to Amateur Photographers.

"My Note Book" has various entertaining bits, but the most striking is an anecdote of Verestchagin, who threw a packet of cigars presented to him into the sea, exclaiming, "I won't smoke. If we can get art and fashion arranged against this vile practice, there may be some hope of its overthrow, at least in polite circles."

Greta's Boston Art Notes are very lively and give such a tempting description of Bach Bay Park, that one is inclined to hire a buggy immediately to explore its beauties. It may be safe to wait until June to realize all its charms.

The Designs for this number are very pretty. The Moonlight Landscape is soft and pleasing, if not very strong, and the Fern Decoration for a Tea Service is quite worthy of reproduction.

A design of Lilies for a Border is original and well conventionalized, and the decoration of Barnacles for a fish plate is suggestive and appropriate, perhaps, if not altogether agreeable. The motto "First Fruits of them that Sleep," does not strike us as appropriate to the design of wheat sheaves, as farmers usually have to be up pretty early, to secure a good crop.

The Magazine sustains its well earned reputation and does a good work in directing the thoughts and studies of young America. We should be glad to see more solid historical and critical matter in it.

E. D. C.

## NOTES.

Brentano's have issued a new book entitled "Frederick Struther's Romance," by Albert Ulmann.

Prof. Felix Adler lectured at the Chicago Opera House, on Sunday last, upon "The Education of Children." Prof. Adler proposes the inductive method, leading from practical examples to higher principles.

The discussion between Col. Ingersoll, Frederick R. Coudert, and Gov. Stewart L. Woodford upon "The Limits of Toleration," held before the Nineteenth Century Club, will be published in the *Truth Seeker* of Feb. 16th.

"The Last Journal" of the late Lady Brassey will be published here at once by Longmans, Green & Co. It contains an account of the trip of the "Sunbeam" to India, Borneo, and Australia. The publishers have sought to make this one of the most sumptuous volumes of late years.

We have received from the publishing house of Hermann Riemann of Berlin, copies of several pamphlets in a series entitled "Allgemein-verständliche Naturwissenschaftliche Abhandlungen," essays on scientific subjects, in popular language. The treatise by Dr. V. Schlegel on "The So-called Four-dimensional Space" is thoughtful and suggestive.

"It is a matter of record," says Governor Oglesby, in his biennial message to the General Assembly of Illinois, "that the labors of the State Board of Health towards the prevention of epidemics of contagious and infectious diseases, have resulted in a saving of nearly \$3,500,000 to the people of the commonwealth in 1881 and 1882, when smallpox was epidemic."



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 THE CONDITIONS OF LIFE. PROF. WM. PREYER, No. 72.  
 BODY AND MIND; OR THE DATA OF MORAL PHYSIOLOGY. FELIX L. OSWALD, M. D.,...Nos. 72, 75, 78.

M. BINET'S entertaining sketch of the state of Experimental Psychology in France is the only direct and convenient source from which the reader can obtain a comprehensive idea of the contributions the author's country is making to this branch of mental science. The work of psychologists in France is distinguished by its almost exclusive bearing upon the pathological phases of psychological phenomena. The greatest successes of MM. Ribot, Richet, Charcot, and others, have been in treating the *diseases* of the mind.

The researches of Dr. Gould upon the nature of consciousness, as studied from the facts of sleep and dreams, are highly interesting, not only as affording suggestions of scientific value, but as exhibiting marks of an exact and cultivated introspective talent.

The concluding essay upon "The Conditions of Life," by Prof. Preyer of Berlin, treats of some important distinctions of modern biology.

Dr. Oswald's papers, in the series "Body and Mind," abound in entertaining and apt illustrations cited in support of his principles of moral physiology.

## PHILOSOPHY.

- THE SELF-EVIDENT. DAVID NEWPORT.  
 THE UNIFICATION OF RELIGION AND PHILOSOPHY. M. C. O'BYRNE.  
 THE ASSAY OF ABSTRACT IDEAS. EDITOR.

FRIEND David Newport contributes to No. 73 of THE OPEN COURT a forcible article discussing "The Self-Evident." Mr. Newport's treatment is marked by a theological tendency, and the points wherein the philosophy of THE OPEN COURT differs from the theology of the author are touched upon in the editorial note, "The Assay of Abstract Ideas." Mr. O'Byrne's article, in the same number, is a scholarly sketch of principles whereon to base the unification of the truths of religion and philosophy.

- SENSATION AND MEMORY. EDITOR,.....No. 74.  
 COGNITION, KNOWLEDGE, AND TRUTH. EDITOR,.....No. 76.

In these two discussions, the conditions and processes by which we start from the bare excitations of the sensory world and attain to knowledge, are unfolded. Sensation is the primal condition of all knowledge; the products of sensation are preserved and transmitted as psychological forms; the physiological law of this retentive power is memory, from which source are evolved the different branches and varied forms of human thought.

- AXIOMS THE BASIS OF MATHEMATICS. DR. EDWARD BROOKS,.....No. 76.  
 THE OLD AND THE NEW MATHEMATICS. EDITOR, No. 77.  
 A FLAW IN THE FOUNDATION OF GEOMETRY.  
 HERMANN GRASSMANN,.....No. 77.

In No. 76, Dr. Edward Brooks of Philadelphia, takes excep-

tion to an editorial thesis that "mathematics is unfortunately constructed on axioms." To Dr. Brooks no other way of construction is possible. There exist "*first truths* or *axioms* which the mind has power to cognize," which are incapable of proof, and which every system, even though nominally rejecting them, nevertheless tacitly employs. The editorial answer to Dr. Brooks, in No. 77, is based upon the principles unfolded in the series of disquisitions on "Form and Formal Thought," in Nos. 64, 66, 67, and 69. Axioms so called are the *result* of reasoning, and not the basis of it; the laws of formal thought determine the correctness and necessity of a proposition; conformity, in every instance, with these laws alone makes a truth universal; the relations of actual, material space have thus universally coincided with the laws of a formal system of third degree, and hence the rigidity and finality of those relations. In the same number, a translation from Hermann Grassmann's "Theory of Extension" is presented; it contains the fundamental points of departure of the new geometry from the old. No English version of this epoch-making work exists. The discussion will greatly interest those who have given their attention to the philosophy of mathematics.

## SOCIOLOGY AND ECONOMICS.

- HENRY GEORGE AND LAND TAXATION. WHEELBARROW,.....No. 73.  
 SYMPTOMS OF SOCIAL DEGENERACY. MONCURE D. CONWAY,.....No. 74.  
 JIM THE INVENTOR. WHEELBARROW,.....No. 76.  
 A GENERATION WITHOUT PROSPECTS. MORRISON I. SWIFT,.....No. 72.

WHEELBARROW opposes Mr. Henry George and the doctrine of Land Taxation with proper regard for the truth contained in the distinguished economist's theories. Objection is mainly taken to the universal creative power which the advocates of Land Taxation claim for their remedy. In man's obedience to moral laws Wheelbarrow finds the only magic wherewith to change the face of society. In "Jim The Inventor" Wheelbarrow traces the tendency prevailing in every branch of human activity, to construct machines which "will run forever;" "perpetual motion" is the fallacy of many systems aiming to eradicate social evils. Criticisms of Wheelbarrow's position will soon appear.

"Symptoms of Social Degeneracy," Mr. Moncure D. Conway, finds to be not unfrequent even in American civilization. We are prone to emphasize the survivals of barbaric institutions in effete Europe, while overlooking the excrescences of our own body politic. Lynch-Law, literary piracy, corruption in administrative circles, are signs of the decay of an ethical system and the theology that protects it. Worst of all, these evils are not unaccompanied with attempts at palliation.

## ESSAYS AND CRITICISM.

- THE ETHICS OF ROBERT BURNS. GEN. M. M. TRUMBULL,.....No. 75.  
 TRUTH AND FICTION. M. WILHELM MEYER,.....No. 76.

"In ease, fire, and passion," says Allan Cunningham, "Burns was second to none but Shakespeare." "He might have added," says Gen. Trumbull, "that as a lyric poet, as a national song writer, he was not excelled nor equalled by Shakespeare, nor by any other poet that was ever born. Burns had the divine gift of music in such excellence that he could put in tune all the different instruments of the great orchestra of man and force them all to vibrate in harmony."

Dr. Meyer is the editor of the new and promising astronomical journal of Berlin, *Himmel und Erde*. His essay upon the part that imagination plays in the observation of meteorites, has been translated with his consent; it is a brilliant treatment of an original theme.



# The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 78. (Vol. II.—52.)

CHICAGO, FEBRUARY 21, 1889.

Two Dollars per Year.  
Single Copies, 10 cts.

## MAKING BREAD DEAR.

BY WHEELBARROW.

A FEW days ago a friend lent me a copy of *The North American Review*, in order that I might read an article by Mr. Henry D. Lloyd, on "Making Bread Dear." In that article Mr. Lloyd shows me the intricate wheels, cogs, and pulleys of that ingenious machine by which a conspiracy of the "rich criminal classes" can increase the price of bread. As my muscle and bone have always been cheap, it is of critical importance to me that bread should be cheap also. As I have usually sold myself in the market for a dollar a day, and from that to a dollar and a half, it has been an essential condition of existence to me that the land around me should be fertile, the rain upon it copious, and the sunshine strong. I have prayed against the late frosts in the spring, and early frosts in the fall, so that the crops might be abundant, and provisions cheap. My prayers have generally been answered as to the crops, but flour has not been cheap, and for years I have been dodging the price of bread. Sometimes I would sneak behind potatoes, but they were perishable, and grew dear in the winter time; then I hid among corn, and a good retreat it was, but the children asked for sure enough bread—the Johnny cake was dry. In the winter time white beans have been my generous friends, and often they have helped me to evade the price of bread. All through the summer time, Nature, the bounteous mother, covers our share of the earth with a carpet of grain resplendent in green and gold, while bands of criminals are permitted by the laws to discount it and corner it, to bewitch it and bedevil it, that it may become costly and scarce to the workingman. The guilty profit goes to them, and with it they corrupt our laws in the very capitol where they are made.

While one gang of food gamblers raises the price of bread, another gang raises the price of meat, but this concerns me little, for little of it I get. Another gang raises the price of coal, another the price of oil, and another the price of matches with which I light my pipe. I am in the toils of monopolies that shave my wages down to "what the traffic will bear." I use the slang of capital, which in my case means the lowest point that flesh and blood can bear, and have strength enough left to shovel. When the wages

comes the monopolies lay tax and tribute on it, and scale a bit of unjust profit from whatever I have to buy. I am helpless. I cannot get even with any one. As I am the very mudsill of society, there is nobody below me that I can oppress in revenge. I cannot retaliate on anybody. If I try to skrimp the dirt, and wheel up a light load, the boss on the bank detects the short measure, and yells, "Fill up the 'barrow.'" Bread-earners by hard labor of every degree. We are the Hebrew Hercules, shorn, and in the hands of the Philistines; we make rare sport for their holiday, but the revelry of monopoly cannot last forever; the hair of Samson will grow again.

I am told that high prices indicate social prosperity, and that they are necessary in order to make high wages for me. I doubt that; I think it is untrue. For many years my wages has remained in figures much about the same, although its power in the market has varied a great deal. Sometimes it would buy a good many comforts, and at other times very few, although nominally it was about the same sum. Since I first worked with the wheelbarrow the population of the country has doubled, while the wealth of it has multiplied fourfold and more. Of that multiplied wealth I get no share at all. I know of it only from reading. I never felt its growth in the swelling of my wages. The increased cost of life I know by hard experience, but no proportionate recompense in higher wages has ever come to me. Relatively, indeed, I am sure my wages is less than it was, because the higher prices make it harder for me to live. Through the increased power of machinery an hour's human labor now produces twice or thrice as much as it did some thirty years ago, but I get no benefit from that; my hours of labor remain the same. I shall never again believe that high prices for everything is a good thing for me.

When I first went to railroading, my wages was a dollar a day; it is now from a dollar and a quarter to a dollar and a half. To say nothing of the increased wealth of the country, and the multiplied facilities for producing all the comforts of life, this raise of wages does not even correspond with the higher prices of food, fuel, rent, and clothes, to say nothing of a hundred other things. You may prove to me by what you call political economy, that I am wrong in this opin-



ion, but I can prove to you by my household economy that I have had no meat for dinner to-day, and in that I know that I am right. I have not capacity sufficient to learn the abstract principles of social science, and if I even had the genius, I am too tired to exercise it now. I learn by object lessons, like a child, and I know that the home of every laborer in Chicago is an object lesson, from which even our statesmen yet may learn that progress sometimes travels hand in hand with poverty. As I lay my touch upon the Titan wrist of labor, I feel in its pulsations, the resolution that they must be divorced, that the makers of progress shall enjoy a larger share of its beneficence, that the men who flinch not from the penalty "in the sweat of thy face shalt thou eat bread," must have the ration that their sweat has earned, and that not much longer will they be cheated out of the bread, after they have paid for it the full price demanded by the great Creator's law. As making bread dear is morally a crime, let us make it a crime by law; let us build new penitentiaries to accommodate those vermin of trade who make dear the food of the poor. They are the lineal descendants of the sordid Egyptian speculators who tried to corner all the corn in Egypt, because there was a famine in the land of Canaan.

It is an impious thing to arrest the bounty of the Creator on its way to the poor man's home. Men combine to reverse the commandment "Feed the hungry," they contrive by strategy to prevent the hungry from being fed. "We must make the five cent loaf a little smaller," said the bakers of Chicago a month or two ago, when a rich forester had successfully performed an operation on the "Board." "Or else we must reduce the weight of the pound loaf to fifteen ounces." Either way, it means a smaller ration for me. In defiance of this visible fact, I am assured by impossible algebra and much double rule of three, that I am getting richer every year by higher wages, and fatter by cheaper food. Statesmen of terrapin brain tell me that I cannot possibly be hungry, because the statistics prove the increasing fatness of the land. I once took a seat in the gallery of the United States Senate in order to hear the debate. In the arena below me was a club of millionaires. To my surprise I saw that they had lost the power of natural speech. They could not talk; they chinked, like dollars rustled in a bag. In metallic monotone they tolled me that of the joint product of labor and capital the share of labor was absolutely and relatively increasing, while the share of capital was relatively decreasing. When I ask for my dividends I am told that I can get them from the statistics. Meanwhile I hear the drone of the everlasting driving-wheel furnishing power to innumerable eccentrics whose province it is to make bread dear, and laborers cheap.

## BODY AND MIND; OR, THE DATA OF MORAL PHYSIOLOGY.\*

BY FELIX L. OSWALD, M.D.

Part XXXI.

### HEALTH AND DISEASE. (Continued.)

THE physiological influence of emotion presents phenomena which cannot always be traced to their proximate cause, however strongly their purpose may suggest their causal connection with certain laws of organic evolution. The *anæsthetic tendency* of mental excitement, for instance, has never been clearly explained, though its effect is perhaps the most remarkable fact in moral physiology. Under the influence of violent emotion, not trifling injuries only, but serious, and eventually perhaps fatal, wounds, have often failed to betray themselves by any conscious sense of pain, till incidental symptoms, or the remark of a bystander, called the wounded man's attention to a fact which his nerves, somehow or other, had omitted to announce. After the battle of Ostrolenka, Kosciusko was surprised to find himself crippled by a shot which he thought had only pierced his boot; and during a rough-and-tumble fight with a Mexican desperado a French sergeant of my acquaintance received two stabs with a dirk-knife that came within an inch of piercing his lung, but which in the excitement of the scuffle were not felt at all, or at least not in a way to suggest the fact of a bodily injury.

"I knew that he struck me more than once when I got him under," said my sergeant, "but I declare I never knew he had done me anything worse than tearing the trimmings of my jacket."

The almost superhuman pluck of certain prize-fighting animals,—bull-dogs and badgers, for instance,—may in reality be founded on a temporary insensibility to pain, and the evident advantages of that negative endowment suggest its development by the agency of natural selection. Individuals gifted with that faculty of emotional *anæsthesia*, were less likely to succumb to the terrors of a life and death struggle, and therefore more apt to prevail in that struggle for existence which in a state of nature is implied by the frequent necessity of contesting the physical superiority of sexual rivals or alien antagonists.

The invigorating tendency of certain passions may have been developed in a similar manner. The formidable and, indeed, quite abnormal strength of infuriated men is so well known that even an athlete will hesitate to try conclusions with an adversary under the influence of raging passions, and in such moments fury-inspired vigor has often accomplished feats which afterwards surprised even the hero of the exploit. "The saints *do* help a man in a desperate plight," said an old Creole planter, who had rescued his family from



the attack of a brutal negro. "I know my age too well to imagine that I could have knocked that brute down with my natural strength. Why, I had nothing in my hand but the knob of my riding whip, and no man in his senses would have backed me for a cent against a big ruffian of that sort; but when I heard my children shriek for help I found I could burst the locked door with one push and stun that brute with a single smash in the face. After he fell, I could not grab anything handier than my wife's smoothing iron, and he would have been up again and at me in the next minute, but I broke his skull at the first crack."

The same strength-sustaining influence of fury may explain the almost miraculous victories of small bodies of desperate men over large armies of better armed foes, as in the three murderous battles which the rustic avengers of John Huss gained against the iron-clad legions of his enemies, or in that still less expected defeat of an entire Russian army by a few hundred followers of the hero-prophet Shamyl. Religious frenzy has often produced a similar effect, and on any other theory only a miracle could explain the almost constant victories of the Saracens, who, in spite of the determined resistance of millions of better disciplined and physically superior opponents, succeeded in less than a century in extending their empire from the Ganges to the Bay of Biscay. The Semitic race would, indeed, seem to be specially susceptible to the physical exaltations of mental ecstasy, and the most curious of all historical illustrations of that influence is, perhaps, the result of the campaign by which King Sebastian of Portugal hoped to achieve an easy conquest over the dying Sultan of Morocco. When the crusaders landed at Sidi Kamat, Sultan Muley had already taken his last farewell of his children and friends, and was not expected to survive the end of that day; but at the news of the invasion the old warrior arose, as a corpse from a coffin, mounted a litter, and throughout the dust and heat of a fiercely contested battle, directed the evolution of his cavalry with the voice of a Stentor; but after the complete rout of the invaders sank back, as from a task accomplished, and died in the arms of his palanquin bearers.

Disease itself has been known to yield to the life-sustaining influence of strong emotions, and feeble women often rise from their sick-bed to alleviate the sufferings of a sick child, and for the time being seem almost proof against the influence of bodily fatigue. Emotional insomnia is a frequent concomitant of mental excitement; intense anxiety seeming to banish, not only sleep, but the very desire of sleep, as if instinct dreaded the consequences of dismissing the aid of any mental faculty in the crisis of impending danger, like a general keeping his troops under arms all night to meet the assault of an approaching enemy.

Impending perils, however, cease to banish sleep after the problem of averting such perils has once been recognized as clearly hopeless, and it is a curious fact that condemned murderers generally enjoy a long, deep sleep on the night before the day of their execution. "Some of them even regain their appetite," said a prison-official whom I questioned on that point. "As long as there is any chance of a commutation or a new trial a scent of hemp makes people half crazy with restlessness, though they do not all show it as plainly as old——, who would trot up and down his cell like a cat trying to find a loop-hole of escape. They will read through big stacks of newspapers in the hope of coming across an encouraging view of their case and get through their meals in a perfunctory, impatient sort of way, as if they hated to waste a moment's time on any matter not directly connected with the all-absorbing problem of dodging the noose. They will lie down after walking around till their legs begin to weaken, but they keep brooding, and at the slightest noise are up again and peeping for news. But the moment the last chance is clearly gone, there comes a change; they stop trotting and begin to look for pastimes and all the meals they can get; some of them, indeed, keep begging for liquor, and as the next best thing seem trying to *eat* themselves into a stupor. Others take to reading novels or prayer-books, according to their religious notions, but all of them get a faculty for sound sleep, at the very time you would suppose a nightmare of falling trap-doors would wake them every ten minutes."

Ill-treated children, under circumstances revealing no hope of delivery, acquire that same "faculty for sound sleep," and will doze away at every opportunity, as if under the influence of an instinctive desire to escape their misery by flight to the fairy-world of dream-land.

That tendency, moreover, may be nature's way of avoiding the alternative of exposing the vital organisms to the influence of protracted grief, for there can be no doubt that sorrow shortens life, and there is a curious suggestiveness in the expression which makes "mortification" a synonym of disappointment. Success, on the other hand, grants a new lease of existence, and very long lives (as long reigns) have generally been cheered by a preponderance of gratifications over bereavements, while the recollection of cruel misfortunes is as often cut short by the merciful intercession of an early death. The reign of the first emperor of re-united Germany was as remarkable for its length as for the number of its triumphs, while there is an equally unmistakable connection between the disappointments and the premature death of Czar Nicholas I., Joseph II., and Napoleon III. The first Napoleon, with all his disregard of personal hygiene, was un-



questionably a man of prodigious vitality, and under less untoward circumstances would probably have outlived all his long-lived brothers.

A comparative study of the lives of centenarians, show, however, that with few exceptions the life-prolonging conditions seem to have included an exemption from all violent emotions whatever, and it must be admitted that the unequivocal cases of life-shortening sorrows are far more frequent than those of death-postponing joys, and the exceptional luck of the most fortunate may in that respect be possibly limited to the absence of cruel afflictions. "Le bonheur n'est qu'un rêve," says Voltaire, "et la bonheur est réelle," and happiness, in its most enduring forms, is, indeed, a mere negative boon—the absence of pain. And since that immunity has, without doubt, characterized the golden age of the *Juventus Mundi*, the era of patriarchal institutions and simple, nature-abiding habits, there is no reason for doubting the records of longevity during the pastoral and agricultural period of the Mediterranean nations—even without taking into account a large number of more directly health-destroying influences of our present modes of life; though from a different standpoint of eudemonism we might find a precarious consolation in the reflection that existence has gained enough in point of intensity to compensate the loss of chronological extent.

In one sense, however, the latter view would be even an understatement of the whole truth: Excitement, by the conflicting emotions of joy and grief, nay, with a decided preponderance of distress, could hardly be less conducive to health and longevity than the soul-stifling, mind-crushing tedium of our Sabbatarian Quaker-life. The joy-hating antinaturalism of our world-renouncing moralists has, indeed, done more to make existence a burden, and death a welcome gate of escape, than all the natural evils of existence taken together; and slaves, groaning under the yoke of an inhuman taskmaster, but sustained by the hope of compensation in the sports of a free weekly holiday, would have a better chance to bear up under the weight of affliction than the Pariahs of our so-called civilization, to whom life offers nothing but sleep—or the Lethe of intoxication—as the only reward for the endurance of lifelong drudgery. Even where outraged Nature fails to revenge herself in secret vice, the sources of vitality fail under the influence of a resignation akin to the withering of a plant deprived of sunlight and warmth; and the doctrine of the Buddhist fanatics who considered life a disease, has been almost justified by the consequences of the attempt to enforce their worship of sorrow.

The alleged injurious effects of excessive joy are mostly confined to cases where a previous tension of moral or mental energies, under the influence of in-

tense anxiety, was too suddenly relaxed by an unexpected propitious turn of affairs; though it is true that the weakness of extreme old age or a far-gone stage of certain organic disorders can make violent excitement of any kind as fatal as violent motion might prove to a person subject to heart-disease. A few weeks ago the international press mentioned the case of a poor German widow, who died in the arms of a son who had just returned from America and hoped to make his sudden arrival a joyful surprise to a family who had long mourned him for dead; and the presence of several hundred thousand spectators seems to leave no doubt in the truth of that famous episode in the history of the Olympic festivals, when old Diagoras, the Rhodian, sank down dead in the moment when the shout of an assembled nation greeted the announcement that his two sons had won the entire *pentathlon*, i. e., carried off the five prizes for which the Grecian athletes of Europe and Western Asia had been training for four years.

A more remarkable, if well established case, would be the story of the Moslem hero who had risen by personal bravery to ever prouder heights of military renown, but who died from emotion, in the flower of his youth, on receipt of his promotion to the supreme command of an army gathered for the conquest of Armenia. Such at least is the account of contemporary chroniclers, though subsequent historians incline to the view which traces the tradition to a fiction of the Caliph Walid, whose jealousy had encompassed the death of his ablest lieutenant—probably by the same means by which the despot Tiberius contrived to terminate the career of his popular kinsman.

#### MONISM AS THE FORMAL PRINCIPLE OF COGNITION.

The very nature of cognition, we have learned,\* is unification, and through cognition our percepts, our concrete concepts, and our abstract ideas arrange themselves into a unitary system of knowledge. We cannot help searching for a unitary conception of the different phenomena, and our mind will never be at ease unless we, at least, feel convinced that we have found it. The disposition of our mind must thus naturally lead us to a monistic philosophy which attempts to understand all the single phenomena of the universe, as well as the whole of reality, by one universal law or from one all-embracing principle.

The constitution of the human mind, in this way, predisposes man for monism. The want of a unification of knowledge is the *subjective* condition out of which monism originates, but in itself it would have no value if it were not justified by experience. We can construct a monism *a priori* by pure reason, but must ratify it *a posteriori* through scientific investiga-

\* See the Editorial "Cognition, Knowledge, and Truth," in No. 76.



tion. The *objective* condition of monism is founded in the character of our actual experiences. All the natural phenomena which ever came within the grasp of human apprehension, were such as conformed directly or at least showed a possibility (if they were but better known) of conforming, by and by, to a unitary law. The regularity of the course of nature, and the rigidity of natural laws indicating their irrefragable universality, are the objective arguments in favor of the oneness of the All, as assumed by monism. The more science has progressed, the more has this truth of the oneness of nature been corroborated, and we cannot doubt but that it will be more and more confirmed. It is a *κρηκη ἐς ἀέλ*—an intellectual possession of humanity that has come to stay for good.

It will easily be understood that the oneness of nature (the regularity which pervades the universe and which can be formulated in natural laws—*die Gesetzmässigkeit der Natur*), must be considered as the ground of, or ultimate *raison d'être* for, the principle of oneness which is found in our mind. Our cognition, with the help of sensation, only mirrors in our consciousness the phenomena of nature in their regularity; so that knowledge in its entirety must become a systematic representation of the world in our brain.

Knowledge is not a useless efflorescence of the mind, as has been supposed by some one-sided idealists; nor does it exist for its own sake simply; it serves the very practical purpose of orientation in this world. So far as our knowledge reaches, thus far do we intellectually own nature, and can hope to rule its course in the interest of humanity by accommodating ourselves and natural events to nature's unalterable laws.

The unitary conception of the world has become a postulate of science. Indeed the single sciences, each one in its province, have always worked out and endeavored to verify the principles of monism. Every fact which seems to contradict the principle of unity must be, and indeed it is, considered as a problem until it conforms to it. As soon as it is found to be in unison with all the other facts the problem is solved.

Monism, being equivalent to consistency, is that view to realize which almost every philosopher aspires. Dualists, from principle, are inconsistent thinkers; yet even they attempt to construct at least a sham unity of their systems. Thus, supernaturalists look upon matter as a product of mind and materialists, vice versa, upon mind as a product of matter. The latter believe that life was created by dead matter, and the former that an extramundane God, the principle of life, created matter. They cannot help striving after a monistic view of the world; for the unification of all knowledge is the inherent principle of cognition.

Dualism appears to be a state of transition. It

emerges from the more chaotic state of many single unifications of knowledge, that were systematized under two opposite and apparently contradictory principles. Plutarch says in his book, *De Iside et Osiride*, chap. 45:

"The world is neither thrown about by wild chance without intelligence, reason, and guidance, nor is it dominated and directed by one rational being with a rudder or with gentle and easy reins as it were; but on the contrary, there are in it several different things, and those made up of bad as well as good; or rather (to speak more plainly) Nature produces nothing here but what is mixed and tempered. There is not, as it were, one store-keeper, who out of two different casks dispenses to us human affairs adulterated and mixed together,\* as a landlord doth his liquors; but by reason of two contrary origins and opposite powers—whereof the one leads to the right hand and in a direct line, and the other turns to the contrary hand and goes athwart—both human life is mixed, and the world (if not all, yet that part which is about the earth and below the moon) is become very unequal and various, and liable to all manner of changes. For if nothing can come without a cause, and if a good thing cannot afford a cause of evil, Nature then must certainly have a peculiar source and origin of evil as well as of good."

Good and evil, light and darkness, heat and cold, appear, at first sight only, as contradictory principles. As soon as we grow more familiar with the facts which we comprehend by these names, and when we attempt to reduce them to exact expressions by measuring their degrees, we perceive that, in reality, they are one and the same principle which can be viewed from opposite standpoints. After the invention of the thermometer the dualism of heat and cold was abolished forever, and a monistic view is firmly established on the basis of exact data, expressed in figures. Every dualism is, upon principle, an inconsistency of thought; but it will peacefully die away as soon as the illogical character of its inconsistency is discovered.

Monism is different from the other philosophical views in so far as it is not so much a finished system, but a plan for a system. It admits of constant realization and further perfection, in all the many branches of knowledge. The plan, however, can be sketched in outline and we need not fear of its being overthrown by unexpected discoveries. Other systems, as a rule, set out with objective principles to which their upholders try to adjust the facts of reality. Some hypothesis is formed and facts are interpreted by this hypothesis. Monism, however, is a subjective principle, a rule informing us how to unify knowledge out of our experiences, a plan how to proceed in building our conception of world and life from facts. We need fear no collision between our pet theories and facts, for it is a matter of principle that we have to take our stand on facts.

P. C.

\*Plutarch alludes to Homer, who feigns Jupiter to have in his house two differing jars, the one filled with good things, and the other with bad. See II. XXIV. 527.



AUGUST 15th, 1875.

BY LOUIS BELROSE, JR.

i.

I NE'ER had seen the moonlit summer night  
 More beautiful; above, the stars were drowned  
 In brightness, and below upon the ground  
 A distant haze blent all in one delight.  
 Along the stream a line of denser white  
 Lay heavily; and nearer, stretched around,  
 The wood stood still and slept without a sound;  
 While Time's swift wing beat on in silent flight.  
 No change; alas, no change, but all as fair  
 And tranquil as the placid sleep of faith,  
 And in my poor worn heart—despair, despair!  
 No change,—and all my hope was changed to death:  
 For I had heard upon the midnight air  
 Life's saddest sound,—a mother's dying breath.

ii.

GONE, gone! The gentle heart that unshdud  
 Could cheer us in the gloom of death's delay  
 Would throb no more: the hand that yesterday  
 Still answered mine; the lids so often dew'd  
 With tears by me; the lips that e'er renewed  
 Forgiveness—gone! Gone the last chance to pay  
 Love with fair deeds: and left to comfort me—  
 The memory of my own ingratitude.  
 O misery!—ab, could I but deceive  
 My sorrow with a little hope; but he  
 Like them that shut their eyelids and believe.

Relentless Truth, look what I bear for thee!—  
 They talk of grief that never learned to grieve;  
 And yet they say we doubt from vanity!

## CORRESPONDENCE.

### INEQUALITY IN MARRIAGE.

To the Editor of THE OPEN COURT:—

I CANNOT refrain from the desire to say a few words in regard to this question of the "Marriage Problem."

The question seems to be, how either or both parties to this most serious of contracts can most *conveniently* be released from the obligations which marriage imposes upon men and women equally—not how best to secure the fulfillment of these obligations. As an experiment limited to five years, I should judge marriage would become an institution from which thoughtful men and women would shrink. As a business arrangement, it is an impossibility because the junior partners cannot be consulted until they arrive, and, as it is unjust to act without taking the whole firm into consideration, the contract cannot be made with a settled *business-like* basis. That the dissolving of the marriage contract is always an unequal matter is clear. "Being married" naturally becomes the business of a woman as soon as she enters into this relation—therefore in case of separation, she is, so to say, "out of occupation" until she either learns a new way of life or marries again—while, as Prof. Cope very truly says, "a man's business success or failures are a thing quite apart" (from his household interests). A matter few take into consideration is also to be thought of. The *ease and irregularity* of a woman's life in a household unfits her greatly for what is required of her as a self-supporting member of the community, and totally unfits her for a return to the natural discipline of the paternal home. Now, I know I have raised a storm, but I crave your patience, my countrywomen! Women have a fancy to regard themselves as "the great army of martyrs," and

I doubt not many of them have much to suffer in the course of their lives—but let us look over the hardships of most married women's lives.—

Housework is a hard task for most women because they decline to learn how to do it, or to exercise it, until forced upon them by marriage. Childbearing is a burden because few women accept rationally and solemnly the position of a prospective mother, or try to suit their lives to the obvious inconveniences as nature intended they should—their sufferings are the tokens of their errors in judgment and behavior. The care of "bringing up" a family is supposed to be the rock on which most of our women are finally wrecked. If women would make more effort to bring up children instead of tyrants there would be less worry and hard work—possibly less occasion for considering the marriage problem.

Still, in spite of being desperately her own enemy, woman enjoys more ease and leisure under nearly all domestic circumstances than men do in their occupations and that does not give her the discipline needed to make an obedient servant—a patient workwoman or a strict attendant to stroke of bell or office-clock—if called upon suddenly to leave her home and take up such occupation. This accounts largely for the "failures" of apparently very capable women when called out of home life to self-supporting efforts; in consideration of this, I think I am justified in saying that the position of the principals in a marriage dissolution is an unequal one. Another thing which makes the matter unequal is that marriage with a man is the happy luxury which his success in the business of life permits him to indulge in, while with women marriage is the business of life through which she expects to attain to happiness and luxury. Therefore, although I fully coincide with Prof. Cope in his remarks on this point, I find the woman's plea for support, on being repudiated, justly or not, in a measure excusable, however lacking in logic or justice.

Discussion of this question of the best methods in a fully unbiassed spirit is a difficult matter, because it is a matter that touches us all more or less nearly. The remedy for "woman's wrongs and rights," suggested by Prof. Cope, is very wisely clausd! I think women will generally find themselves in the right and without wrongs wherever they accept their position in marriage naturally as *rational beings* with duties in life and obligations as sharply defined and as binding as those laid by Natural Law and Society upon men. However antiquated the opinion may sound I venture it: I believe a careful study and acceptance of the sentiments set forth in Katherine's speech (in *The Taming of the Shrew*, Act V. Scene II.) might help many a woman to solve her vexed marriage problem. I might add—the delicate courtesy toward women expressed in Prof. Cope's writing indicates how strongly consideration for women brings out the gracious qualities in man and assures us that she will be more leniently treated than perhaps she desires in the consideration of this knotty problem.

We are the children of our times and must accept patiently the movements of our times. Marriage like all our institutions must take its turn in going through the great mill that is grinding us out of old ways into new ones, and the grinding will go on until only the good grain is left and the chaff blown away—the noise of this grinding and the woefulness of its work is alarming and we naturally hasten to devise means of going to the rescue. To refrain from such effort would be to deny our humanity. The most sacred things are getting caught in this mill. Therefore our lance-breaking—therefore our OPEN COURT.—Meanwhile the re- and e-volutions will go on and end in the "selection and survival of the fittest," not only of individuals but of institutions. ZEKANAH.

### THE MATRIARCHATE.

To the Editor of THE OPEN COURT:—

I wish to make a slight correction of the statement of Prof. E. D. Cope in THE OPEN COURT of Dec. 27, in reference to Ma-



triarchy, which he declares "was simply a prostitution," under which "female infanticide was practiced and a system established which has its legitimate successor in the prostitution of modern ages."

All this is a mistake. Matriarchy was the first step outside of promiscuity; it was the very foundation of the family. Wilkin shows that upon the relation between the mother and child the remotest conception of the family was based.

The primal idea of family originated in this relationship. The child bore the mother's name; her authority over it was recognized as in accord with nature. The mother and child constituted the home, the father at first having no part in it; he remained a wanderer held in no esteem. The son as child of his mother ranked the father, and this priority of mother and child extended into religious observances. W. Robertson Smith shows that in the oldest Semitic cults, where a god and goddess were worshipped together, they are not husband and wife, but mother and son, the mother holding the first place. This form of deity dates to the earliest historical stage of society, the matriarchate.

Monogamy had its birth under the matriarchate. Neither promiscuity nor polygamy was extant, but a firmly established monogamy is shown by wide historic evidence wherever the mother-right, *i. e.*, matriarchy, existed.

The second step in family life took place when the father, dropping his own name assumed that of his child. Tylor gives numerous instances of this custom which is still extant on the island of Java, in Australia, in Madagascar. Through this step the father allied himself to both mother and child, although still holding an inferior position to both. The matriarchal family was now fully established, descent running in the female line. Abundant traces are still to be found over the globe; America, Asia, Africa, and the isles of the sea all preserving its records.

Thus we find that woman's liberty did not begin to-day, or under modern forms of government, but that she was in reality the founder of civilization. In the most remote times woman enjoyed superiority of rights in the family and in governments. Under the matriarchate, even its most degenerate forms, the governmental and marital rights of woman are even now more fully recognized than under any phase of Christian civilization. Among the State archives at Albany, N. Y., treaties are preserved signed by the "Sachems and Principal Women" of the Six Nations. In this wonderful confederacy of the Iroquois, upon whose form of government the historian Bancroft says our own was based, the condition of woman was superior. A council of Matrons existed to whom all disputed questions were submitted. Women possessed control of peace and war, Sir William Johnson giving instances where squaws forbade young Mohawk braves taking the war-path. In marriage among the Iroquois, if for any cause husband and wife separated, the wife took with her, not alone her own property, but also the children, which the unwritten law of the red man recognized as more fully belonging to her by the law of nature, than to the father. Descent ran in the female line, and many customs of the Matriarchate are still extant among the scattered remnants of this warlike confederacy, the most powerful of all nationalities found at time of its discovery, upon the continent of North America. Although among the Iroquois a female prisoner might be condemned to torture or the stake, yet her chastity was preserved inviolate.

Historians agree as to the high civilization of those nations or tribes still preserving some trace of matriarchal customs. Backofen, the celebrated Swiss jurist and author, says, "the people who possessed the mother-rule, together with Gynaikokraty (girl's-rule), excelled in their love of peace and justice."

One of the most brilliant modern examples of the Matriarchate was found in Malabar when discovered by the Portuguese in the fifteenth century. A high state of the arts and a superior civiliza-

tion existed. The Portuguese, amazed by the opulence of its cities, the great perfection of its navy, the superior organization of its army, the splendor of all habits of living, were no less surprised to find all their refinement under a family and governmental relation entirely contrary to that of Europe. At this period woman's position in England and on the Continent was that of household and political slavery. The Matriarchate can be traced in Malabar to the time of Alexander the Great.

Backofen (Mutterrecht p. 312) declares that among people of gynaikocratic habits, woman is of striking beauty and strength.

Female infanticide, so far from having been customary under the Matriarchate (as asserted by Prof. Cope), originated under the Patriarchate. Not until man became superior in the family, in government, in religion, do we find record of infanticide, or the immolation of children as a religious act. Not alone the destruction of female children at birth, but also the sacrifice of both male and female children as propitiation of an offended (male) deity, are equally due to the patriarchate. These were practices entirely out of consonance with woman's thought and life. Biblical Abraham binding Isaac for sacrifice to Jehovah, carefully kept this intention secret from Sarah. Passing children through the fire to Moloch, originated under the Patriarchate. Jephthah offering up his daughter in accordance with his vow is typical of the low regard for life, especially that of woman, under the patriarchate, during which period the destruction of girl children became a widely extended practice and infantile girl-murder the custom of many nations.

During the Matriarchate, or Mother-rule, all life was regarded as holy; even the sacrifice of animals was unknown. Like infanticide, prostitution with all its attendant horrors traces itself back through polygamy—its origin—to the Patriarchate, or Father-rule. Under the Matriarchate, daughters were free in the choice of husbands, no form of force existing. Through the Patriarchate they have been looked upon as slaves to be disposed of as the father should choose. Even in Christian lands, until within the last few decades, girls have been regarded as property and considered valuable in proportion to the political or other advantage they were likely to bring the father in the legal prostitution of a forced marriage. In France, to-day, the peasant who is the father of girls alone, if asked in reference to his family, mournfully replies, "I have no children, only daughters."

The hope of the world lies in the fact that woman not only realizes her position under patriarchal civilization, but is raising her voice in protest against it.

MATILDA JOSLYN GAGE.

ABERDEEN, Dak. T., Jan. 5, 1889.

## SOCIAL OPPORTUNITIES AND MARRIAGE.

To the Editor of THE OPEN COURT:—

FOR Professor Cope, whom I knew in his explorations in the Bridger basin in Wyoming, I have the greatest respect. But his ideas of the solution of the marriage problem seem too radical.

After divorce there generally comes another, or two other marriages. This seems to show, not that marriage is a failure, but that the contracting parties got the wrong partners. The best means of preventing that would seem to be the formation of a more extensive circle of acquaintance previous to marriage, thus giving a larger number to choose from. There is no difficulty in a man establishing his business standing among strangers, if he has any. Why could not arrangements be made to establish his social standing in a similarly convenient way; *e. g.*, suppose I am en route to Chicago, or there, and see a lady whose appearance is such as to make me desire her acquaintance, why should I not be able to present a card with name and social standing, moral character, etc., with a request for permission to visit her at home? Outside of the small circle of one's acquaintances at home it is a



difficult matter to get acquainted with the ladies whom one sees and admires elsewhere. Some young folks lawlessly break through conventionalities and form acquaintance on sight by "flirting" (the lady flirting a handkerchief). And I have known some happy marriages in high life made that way. It is more likely that a man will suit himself out of a thousand acquaintances than among three hundred. There could be clubs in each town to exercise rigorous supervision over the members and answer inquiries. Whether the ladies should have the right of proposal too I will not pretend to decide; there seems to be nothing in nature against it. There are many men so immersed in business that they cannot get time to get wives; it would seem that it would be an advantage to them to be chosen.

Another matter that intimately concerns the permanency of marriage unions can only be hinted at here. The basic fact of marriage is usually kept in the background until after the public ceremony. When it is too late for a remedy the parties often find their ideas on this subject widely opposed. Men who would rather have no wife than a childless one find themselves married to women who want no children. Such a man finds no remedy but in divorce.

The union of one man with only one woman is his entire lifetime, lawless or lawful, seems to be nature's ultimate requirement; monogamy in the true sense of the word. This agrees with the law of progress.

Geo. Wilson.

LExINGTON, Mo.

### THE PHYSICAL BASIS OF MENDACITY.

To the Editor of THE OPEN COURT:—

ONE of the great daily newspapers of the country has referred somewhat unfeelingly to a tendency to mendacity on the part of the veterans of the late war.

The cruel and heartless manner in which it was done has provoked much well deserved criticism, nevertheless there was truth in the assertion and it would be better for the veteran to have the truth admitted and its cause elucidated.

In looking at the subjective face of mendacity, we find at once a retrograde metamorphosis of the victims' hemispherical ganglia. The cause of mendacity is pathological—as applied to the ex-soldier, it is one of the extreme outcomes of a degeneration of nerve-structure—the result of prolonged hardship to his nervous system.

The average ex-soldier aged before his time—nervous defects of varying degrees of severity are very common among these men—permanent abnormal conditions of motility, sensibility, and perversions of the special senses are observable to any competent person who looks for them.

The ex-soldier's hand trembles, his gait is unsteady, his memory and will are defective, and the heat-regulating mechanism of his body is permanently unhinged—all of which are nervous defects. The mental strain put upon the soldiers of the late war was immense—Sheridan was honest enough to admit it; he declared that he was emphatically afraid in battle and that courage was all a question of the influence of mind over body.

This I presume to have been General Sheridan's way of expressing the brain tension of a man, whose nerve-centres of ideation are functioning as courage in the presence of a great and keenly appreciated danger.

The nervous disabilities of ex-soldiers (one rare form of which is a tendency to mendacity) had their origin in the Neurokinesis\* of War.

And now somebody will ask, What about the bad habits of some of these men?—Yes, some of them did go to the bad and

\*The term Neurokinesis has recently been introduced to express in one brief word the cause of the common nervous troubles of old soldiers—it means a shaking up of the nervous system.

others are going there, and the wonder is that more have not gone there.

Did it ever occur to the reader that there is a physical basis of bad habits? The same nervous defects that provoke a craving for stimulants, also hold the will in abeyance and blunt reason, because the cerebral neurine, that functions as reason and will, is also defective.

No harm can come to ex-soldiers from a candid discussion of Soldier Mendacity.—This subject in the hands of demagogues will become a boomerang, but when carefully handled in the light of modern Neuropathology will benefit the veterans and prove a very interesting study to those who are competent to pursue it.

HORACE P. PORTER, M. D.

### POSTULATES VS. AXIOMS.

To the Editor of THE OPEN COURT:—

YOUR singularly excellent series of articles on "Form and Formal Thought" ought to set up that much needed movement in philosophical circles which no doubt you desire to excite. I believe that it will do so. Evidence of such a natural effect is afforded in a late issue of yours.

A contributor enters his protest against your disparagement of axioms and against Schopenhauer's dictum, that a science based on non-proven propositions remains non-proven itself.

It would seem tolerably plain that the strength of any consequence in a chain of reasoning is measured rigorously by the strength of its weakest antecedent, so that if what is meant is this merely, Schopenhauer's dictum is strictly invulnerable. The fallacy in Schopenhauer's dictum is that it is based upon the now fully exploded Cartesian theory of logic, which supposed that all valid reasoning is analogous to a chain composed of serial links of propositions, each absolutely dependent for its validity on some single antecedent. We now know that very strong conclusions result from the concurrence of a number of comparatively weak independent inferences. This alters the notion of proof entirely, and it follows by no means that a sufficient number of even unproved propositions may not, by their concurrence and united strength, establish a conclusion with any assigned grade of certainty.

This, however, is not the argument of the contributor. He will do battle with obsolete weapons on a field we consider as completely outflanked.

What is it that you advance that occasions his protest? Is it not this? You say that the entire frame of existence, physical and mental, is grounded in an immaterial transcendental subsistence, that is best termed Form. That without any significant error we may consider as subsisting, and may speak of, a world of form. That this world of form has its own facts, truths, and laws, which are capable of significant and useful cognition and expression, and that while this world of form with its facts, verities, and laws spreads vastly and indefinitely outside of the universe of actual existence, as that is commonly understood, its said facts, verities, and laws, so far as they can be made to apply, hold for the actual universe with entire rigor. In other words, the truths of actual existence are merely special instances of the more general formulae of the formal world.

You say also that research in the domain of formal thought has shown that axioms are not only illogical but unnecessary, and that the fundamental data of formal science are pure postulates, subject to no rule save the single rule of mutual consistency under the laws of mental operation.

This you do not leave to rest upon your deductions alone, but you prove it by citing a distinguished instance, in which an almost peerless mathematic has been deduced from postulates without axioms.

This is Hermann Grassmann's *Ausdehnungslehre*, a work that



yields to no other in rigor of demonstration and yet which possesses a search, power, and beauty altogether singular.

The contributor says that "it is far from certain that he (Grassmann) has succeeded." The contributor is certainly mistaken. The principles and methods of the *Ausdehnungslehre* are not easy to comprehend and have been shamefully neglected; but no infraction has been made upon their entire soundness. On the contrary, criticism has but disclosed the unique merits of the system and the study of the *Ausdehnungslehre* never fails to arouse the admiration and enthusiasm of every one who will take the pains to master its elements.

The contributor asks, "How does he (Grassmann) know that space has three dimensions?"

Here is misapprehension. Grassmann does not say it as an *ascertained* truth that space has three dimensions. What he says is in effect this: "I am able to formulate, by pure intellectual representations, a system of conditions wherein relations of co-existence and motion of a three-fold complexity may obtain." In other words he postulates, creates this form. He does not find it. It being his own creature he might name it as he chose, but because it happens that such a system agrees very closely with the ordinary notion of space, he adopts that name for reasons that are quite obvious.

The implications of formal thought are exemplified in a striking manner to the old fashioned type of comprehension, in connection with the idea of space of four dimensions.

By pure intellectual representation a system of conditions is formulated wherein relations of co-existence and motion of a four-fold complexity may obtain.

The elements of this system are *posited* not *found*. Whether or not any actuality exists to correspond, is wholly foreign to the motive. The system is a *figment*, a *pure form*. It subsists because of a mental *fact* and because of its formal *possibility*. For in the realm of formal thought, whatever can be formulated may be caused to subsist in virtue of that same formulation. In all this there is nothing really arbitrary. The formulation of formal systems is indeed exempt from the limitations of actual existence yet it is, nevertheless, rigorously conditioned. The form of the human mind gives laws of statement and process that are completely determinate.

Neither are such ideas really paradoxical. Space of four dimensions, or space of any order of dimensionality, has precisely the same ground of being and just the same title to consideration as has space of two dimensions or space of one dimension. Both of these are merely formal subsistences and if the contributor thinks otherwise, I ask him to apply the same kind of test that he will apply in the case of extra dimensionality. Let him make space of one or two dimensions contain any actual existence.

Again it is misapprehension that suggests the statements that Grassmann "makes use of axiomatic truths" and that "most of his postulates are merely axioms in disguise." All discourse, whether actual or tacit, proceeds in virtue and by means of systems of signs. Two sorts of elementary sign statements are all that logical discourse requires. The first sort comprises postulates and definitions both of which are essentially alike. That they may be and are usually stated in the form of propositions is not really significant. They are acts and expressions which refer exclusively to sign-systems. They affirm nothing but what is strictly relevant to the notation of the signs. Their sole office is to ascertain or state the proper meaning of those signs. Reason demands nothing in relation to them save that they shall be constant and consistent in view of the purpose for which they are posited.

The other sort are propositions, with a character and function of an entirely different kind. Propositions state conditions, processes, and events in general. Propositions affirm, predicate something. Hence of absolute necessity they must have a *material*

*content*. Unless they fulfill this indispensable condition they are only verbal shams and not propositions at all. Now an axiom is only a very plain proposition, so plain that the mind is at a loss to find any proposition more original. But as it is a proposition it is subject to the essential conditions necessary to constitute a proposition, and hence, unless it possess a material content, it is an abuse of sense and language to regard it as, or term it, an axiom.

I believe that if the contributor will look again he will perceive that Grassmann has studiously avoided using any proposition without deriving it logically from his postulates; that he will perceive that Grassmann's postulates are not offered as descriptions of what exists, but that the real effect of his utterance is: "Let there be supposed A, or B, or C, with properties and relations supposed to be D, or E, or F."

In my judgment the cardinal error that the contributor makes, he states thus: "All reasoning can be traced back to truths which cannot be derived from other truths and hence cannot be the result of reasoning."

Modern logic and the modern theory of cognition have effectually exploded this veteran theory of reasoning. Every cognition is determined by previous cognitions, and nowhere in the content of the mind is there to be found any iota of knowledge that cannot be explained as the product of mere inference operating upon prior cognitions either alone or combined with that which, although it causes knowledge, is not and can never become knowledge itself, namely, sense-presentation.

What is said as to the strength of our belief in axioms is wholly beside any logical question. Certainly may easily be a mere subjective conceit or feeling of conclusiveness and wholly mistaken. The history of belief would seem to dictate the utter neglect of certainty as a logical argument. Let us have truth for the sake of certainty, not certainty for the sake of truth.

FRANCIS C. RUSSELL.

## THE LOST MANUSCRIPT.\*

BY GUSTAV FREYTAG.

### CHAPTER XXX.—Continued.

"I know that the doubt arises often in my mind," the Sovereign murmured, "whether my unhappy skill has made them lies of human nature, or whether I myself am an automaton, which when wound up nods and repeats the same gracious words without thought. I know there are hours when I am ashamed of myself, when I strut about the stage as a clown or a bully; I see the wires that move my joints; I feel a desire to place my own head in the vice in order to improve what is faulty in it, and I see a large chest open into which I am thrown when my *rôle* is played out."

"Oh," he groaned, from the depths of his heart. "I know that I am a reality, if not by day, yet at night. None of those about me are tormented in lonely hours as I am; their temples do not beat with fever heat when they lie down after their day's work."

"What pleasure have I amidst these dull tapestry-rooms, or among the old pictures of Mother Nature? Laughing without amusement, angry about trifles,—everything cold, indifferent, and soulless!

"It is only in rare moments, when I have been with her, that I feel like another man; then the warm

\* Translation copyrighted.



blood courses through my veins. When in her honest simplicity she talks of all that she loves and takes pleasure in, a woman with a child's heart, then I become young again like her. She talked to me of her brother 'curly-head.' I see the boy before me, a lively lad, with his sister's eyes. I see the little simpleton eating his bread and butter, and it moves me as if I were reading a touching story. I long to catch up the boy in my arms as if he belonged to me.

"She herself is true and upright; it is a pure mind, and beneath her calm gentleness strong passion lies concealed. What a passion she fell into when my messenger offered her the patent of nobility! She is a woman to live with whom is worth some trouble, and to gain whom a man would do much.

"But what can I do? What I can give her will be of little value to her; what I take from her—how will she make up her mind to that?" He looked timidly at the empty place on the wall. "Another picture was to have hung there," he exclaimed; "why is it not there? Why does the remembrance of one long gone lie on my brain like a stone, the pressure of which I feel every day when mingling among men, and every night when I rest my weary head upon my hands? That woman slept many years ago in the same room where now the stranger reposes; she did not awake, as it would have been right for her to have done; when she did awake and came to consciousness, a spring broke in her weak mind, and she remained a soulless body."

A feverish shudder passed through him; he shook himself and rushed out of the gallery, looked shyly behind him, and closed the door.

"The violence of passion is extinguished," he continued, after a time; "with years one becomes more cautious. I will hold her fast, whatever may be the result; it is no longer the burning glow of youth, it is the heart of a ripened man that I offer to her. With firm patience will I await what time prepares for me; slowly will this fruit ripen in the warm sun. I shall persevere, but I will hold her fast. Her husband is becoming suspicious about her; it was an awkward excuse that he invented; he also is struggling out of my hand. I must keep her, and only childish means can be used for these childlike hearts."

The bell rang, the servant entered, and received an order.

Magister Knips appeared before the Sovereign; his cheeks were flushed, and vehement excitement worked in his features.

"Have you read the memorial which Professor Werner has written concerning the manuscript?" asked the Sovereign, carelessly. "What is your opinion of it?"

"It is a prodigious, astounding account, Most Gra-

cious Prince and Sovereign. I may well say that I feel this discovery in all my limbs. If the manuscript should be found, the fame attending the discovery will be imperishable; it would be discussed in the preface of every edition in which the question of the manuscript occurred, to the end of the world; it would raise the learned man to whose lot this greatest earthly good fortune should fall, high above his fellow mortals. Your exalted Highness also, according to Act 22, § 127, of the law of the country, would undoubtedly have the first right to the discovered treasure, and his Highness would be hailed among all people as the protector of a new era of knowledge concerning the Romans."

The Sovereign listened with satisfaction to the enthusiasm of the Magister, who in his excitement forgot his humble bearing, and pathetically stretched out his arm in the direction in which he saw the radiant crown hovering above the head of the Sovereign.

"All this would occur if one found the treasure," said the Sovereign; "but it is not yet found."

Knips collapsed.

"Undoubtedly it is presumptuous to think that such a happiness could fall to the lot of any human being, yet it would be a sin to doubt its possibility."

"Professor Werner seems to attach much value to the discovery," rejoined the Sovereign, indifferently.

"He could not be a man of sterling judgment who did not feel the importance of this gain as much as does your Highness's most humble servant and slave."

The Sovereign interrupted the speaker.

"Mr. Von Weidegg has proposed to you to remain in my service. Have you agreed to do so?"

"With the feelings of a rescued man," exclaimed Knips, "who ventures to lay at your Highness's feet thanks and blessing with unbounded veneration."

"Have you already engaged yourself?"

"In the most binding way."

"Good," said the Sovereign, stopping the stream of the Magister's respectful assurances by a motion of his hand. "It has been reported to me, Magister that you have a special good fortune in finding such rarities—good fortune," repeated the Sovereign, "or what comes to the same thing, skill. Do you seriously believe that these indistinct traces will lead to the lost treasure?"

"Who can now maintain that such a discovery is impossible?" cried the Magister. "If I might be allowed, with the deepest respect, to express my views, which burst forth from my heart like a cry of joy, it is, I dare not say probable, but yet not improbable, that an accident might lead to it. Yet if I may venture respectfully to express my experience, which perhaps is only a superstition, if the manuscript be found, it will not be found where one expects, but somewhere



else. Hitherto whenever in my humble existence I have had the good fortune of making a discovery—I mention only the Italian Homer of 1848—it has always been contrary to all anticipations; and what your most exalted Grace calls my skill is—if I must explain the secret of my good fortune—really nothing but the circumstance that I have generally sought where, according to human probability, no treasure could be supposed to lie."

"The views which you entertain are certainly not solacing for an impatient person," said the Sovereign, "for that may last a long time."

"Generations may pass away," replied Knips, "but the present and the future will search until the manuscript be found."

"That is but poor comfort," said the Sovereign, laughing; "and I confess, Magister, you disappoint by these words the lively expectation which I cherished, that your dexterity and skill would soon obtain for me the pleasure of seeing the book in the hands of the Professor—the book itself, or at least some palpable proof of its existence. I am a layman in all these things, and can form no judgment of the importance which you attach to the discovery. To me at present it is only to play off a joke, or—to repeat the words which you lately used with respect to your miniatures—only for the sake of raillery."

The expression and manner of the Magister altered gradually, as if under the spell of an enchanter; he shrank into himself, laid his head on his shoulder, and looked with a terrified eagerness at the Sovereign.

"In short, I wish that Mr. Werner should soon be put upon a certain trace of the manuscript, if it is not possible to obtain the manuscript itself."

Knips remained silent, staring at the speaker.

"I desire you," continued the Sovereign, emphatically, "to employ the talent you have already shown for this object. Your help must, of course, remain my secret, for I should like Mr. Werner to have the pleasure of making the discovery himself."

"It must be a large manuscript," stammered out Knips.

"I fear," replied the Sovereign, carelessly, "it must long have been torn to pieces. It is not impossible that some scattered leaves may have been preserved somewhere."

The Magister stood thunderstruck.

"It is difficult to satisfy the Professor."

"So much the greater will be your merit and reward."

Knips remained silent, in a state of terror.

"Has your confidence vanished, Magister?" said the Sovereign, ironically. "It is not the first time that you have succeeded in such a discovery." He approached closer to the little man. "I know something

of former trials of your dexterity, and I have no doubt of the comprehensiveness of your talent."

Knips started, but still he remained speechless.

"For the rest, I am contented with your activity," continued the Sovereign, in a changed voice. "I do not doubt that you will in many ways know how to make yourself useful to the officials of my Court, and thereby consult your own future interest."

"What high honor!" said Knips, pitifully, drawing out his pocket-handkerchief.

"As regards the lost manuscript," continued the Sovereign, "the stay of Mr. Werner will, I fear, be only temporary. The task of pursuing the investigations in our country would, in that event, fall upon you."

Knips raised his head, and a ray of pleasure passed over his troubled face.

"If the manuscript is, in fact, as valuable as the learned gentlemen seem to think, then in case, after the departure of the Professor, there is still something to discover, you will have found with us an occupation which is especially suited to you."

"This prospect is the highest and most honorable which my life can attain to," replied Knips, more courageously.

"Good," said the Sovereign; "endeavor to deserve this claim, and try first what your dexterity can do."

"I will take pains to serve your Highness," replied the Magister, his eyes cast on the ground.

Knips left the private apartment. The little man, who now descended the staircase, looked very different from the happy Magister who a few minutes before had ascended it. His pale face was bent forward, and his eyes wandered furtively over the faces of the servants, who watched him inquisitively. He seized his hat mechanically, and he, the Magister, put it on his head while still in the royal castle. He went out into the court; the storm swept through the streets, whirled the dust round him, and blew his coat-tails forward.

"He drives me on; how can I withstand him?" murmured Knips. "Shall I return to my proof-sheets in that cold room? Shall I all my life depend on the favor of professors, always in anxiety lest an accident should betray to these learned men that I once overreached them and derided them?"

"But here I pass a pleasant life, and have opportunities of being the cleverest among the ignorant and making myself indispensable to them! I am so already; the Sovereign has shown himself to me as one comrade does to another, and he can, if I do as he wishes, as little part from me as the parchment from the writing on it."

He wiped the cold sweat from his brow.

"I myself will find the manuscript," he continued,



more confidently. "*Jacobi Knipsii sollertia inventum.* I know the great secret, and I will search day by day where only a wood-louse can creep or a spider hang its web. Then it will be for me to decide whether I shall take the Professor as an assistant to edit it, or another. Perhaps I will take him and he will be thankful to me. He will hardly find the treasure, he is too dignified to listen and to spy out where the chests are concealed."

The Magister hastened his steps; the wind whistled in sharp tones behind him,—it tore from the trees the dry leaves of the last year, and scattered them on the hat of the little man. The dust whirled more rapidly round him; it covered the dark Court dress with a pale grey coating, it pursued and enveloped him, so that the foliage of the trees and the figures of men disappeared from his sight, and he hastened onward wrapped in a cloud of dust and dead leaves. Again he raised his pocket-handkerchief, sighed, and wiped the perspiration from his temples.

#### CHAPTER XXXI.

##### HUMMEL'S TRIUMPH.

THERE was a lowering sultriness in nature, and also in the busy world of men. The barometer fell suddenly; thunder and hail coursed over the country; confidence was gone, stocks became worthless paper; lamentation followed arrogance; water stood in the streets; and the straw hats disappeared as if wafted away by the storm.

Whoever in these changing times might wish to observe Mr. Hummel in a good-humored frame of mind must do so in the afternoon before three o'clock, when he opened his garden door and seated himself near the hedge. During this hour he gave audience to benevolent thoughts; he listened to the striking of the city clock, and regulated his watch; he read the daily paper, counted the regular promenaders, who daily walked at the same hour to the wood and back again to the city, and he accosted his acquaintances and received their greetings. These acquaintances were for the most part householders, hard-headed men, members of the city commissions, and councillors.

To-day he was sitting at the open door, looking proudly at the opposite house, in which some secret commotion was perceptible; he examined the passers-by, and returned with dignity the bows and greetings of the citizens. The first acquaintance was Mr. Wenzel, a gentleman of means, and his sponsor, who for many years had taken a constitutional every day, summer and winter, through the meadows to get into perspiration. It was the one steady business of his life, and he talked of little else.

"Good day, Hummel."

"Good day, Wenzel. Any success to-day?" asked Mr. Hummel.

"Pretty fair, only it took a long time," said Mr. Wenzel, "but I must not stop. I only wanted to ask you how things are going with him over the way?"

"Why that?" asked Hummel, annoyed.

"Do you not know that his book-keeper has disappeared?"

"What!" exclaimed Mr. Hummel.

"They say he has speculated on the stock exchange, and escaped to America. But I must be off; good day."

Mr. Wenzel hastily departed.

Mr. Hummel remained in a state of great astonishment. He heard the voice of the city-councillor calling out:

"Good day, Mr. Hummel—a warm day—90 degrees in the shade. Have you heard?" he said, pointing with his stick to the neighboring house.

"Nothing," cried Hummel; "one lives in this place like in a prison. Whether it is fire, pestilence, or the arrival of high personages, it is only by pure accident one hears of it. What is all this about the absconding book-keeper?"

"It appears that your neighbor placed too much confidence in the man, and he has secretly used the name of his employer in some mad speculations, and fled last night. They say it is to the amount of forty thousand."

"Then Hahn is ruined," said Hummel, "irredeemably. I am not surprised at it; the fellow has always been impractical."

"Perhaps things are not so bad," said the councillor, as he left him.

Mr. Hummel remained alone with his thoughts "Naturally." He said to himself, "It was inevitable. In everything, high-flown—houses, windows, and garden fancies—never any rest; the man is gone out like a candle."

He forgot the passers-by, and moved backwards and forwards on his main walk, looking sometimes with curiosity at the hostile house. "Out like a candle," he repeated, with the satisfaction of a tragic actor who endeavors to give the most terrific expression to the telling words of his rôle. He had vexed himself half a century about that man; before his disposition to corpulency had begun, he had despised this man's ways and business. This feeling had been his daily entertainment; it was one of his daily necessities, like his boot-jack and his green boat. Now the hour was come when fate paid off the man over the way for having injured Mr. Hummel by his presence in life. Hummel looked at the house and shrugged his shoulders; the man who had placed that deformed structure before his eyes was now in danger of being driven out of it.

(To be continued.)



## BOOK REVIEWS.

DIE ENGLISCHE FABRIK-INSPEKTION. Ein Beitrag zur Geschichte der Fabrikgesetzgebung in England. Otto W. Weyer, Elmir, N. Y. Tübingen: 1888. H. Laupp.

The necessity of legislative interference in the regulation of the relations of employer and employed, in the shops and factories of England, became first apparent towards the close of the last and the beginning of the present century. The inventive talent and commercial genius of the British people had secured for their industrial products the foremost place in the markets of the world; in England the monopoly of international manufactures centered.

To ensure beyond chance of overthrow the position thus attained, no effort was spared nor course untried to increase the productivity of English labor and English capital. The latter resulted in the inventorial activity that marks this era of industrial progress, while the former found its immediate expression in the reduction of wages and the extension of the hours of daily employment. Aggravated by the selfishness and inhumanity of the manufacturers, who were originally favored in their projects by local conditions, the policy of individualism led in time to the oppression and virtual enslavement of the working population. The first enactment of Parliament, passed in 1802, regulated merely the employment of children. From the faulty measures taken to ensure its enforcement, it remained ineffective. The same difficulties attended the various subsequent attempts at legislative interposition prior to 1831. Not until the stirring events of the early part of the Thirties did the intervention of State authority bear fruit of promise; in 1833 the Factory Inspection Acts were passed; from the enactment of these measures begins the long course of Factory legislation which has materially altered the conditions of English industrial life and exerted a beneficent influence upon the welfare of the working population. This direction of legislative action in England, constitutes the topic with which the historical and critical investigations of Mr. Weyer deal.

The subject falls naturally into two lines of treatment, which are carried side by side throughout the work: *First*, the history and genetic development of Factory legislation, the extent and content of its provisions, with the consequent effect upon the classes in whose interests State intervention was demanded. *Second*, the economical and political significance, from a scientific standpoint, of an institution so opposed in principle to the prevailing theories of political economists.

Mr. Weyer says he has found nowhere a politico-economical vindication of the English Factory legislation. In England the question is evaded; on the Continent, the fear of disastrous economical results has hindered the proper solution of the problem; while in America, we are committed, in theory at least, to a policy quite the opposite. The very advocates of this departure from the traditional doctrines of political economy did not originally advance arguments to support it; motives of justice and humanity gave the first impulse to the movement. On the side of the opposition were ranged the theorists and *doctrinaires* of the dominant schools of political science, whose predictions of economical ruin met with no formal refutation. But the prosperity of the national industries remained unimpaired and the work of the Factory Inspectors was eminently successful. The latter, in the supervision of their broad province and the management of the vast material under their care, became an important power in shaping the practical economical policy of the nation; they justified by their success the principles on which State intervention had been based, and they guided by the intelligent exercise of their duties the future course of legislative interposition. The results of their activity have shattered the foundation upon which the *laissez-faire* economists based their doctrines.

We are prevented from following Mr. Weyer in his masterly

argument supporting the policy of State intervention from a purely scientific standpoint, and must refer our readers to the expositions of the work. The sources from which the author has drawn are throughout original. Based upon the irreversible groundwork of facts, and free from all speculative discursiveness, the line of reasoning followed and the conclusions reached are admirably illustrative of the inductive method of modern Political Science and of the careful personal judgment that such investigations require.

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THE ENGLISH RESTORATION AND LOUIS XIV. (Epochs of Modern History.) By Osmond Airy, M. A. New York: 1889. Charles Scribner's Sons. Chicago: A. C. McClurg & Co.

The latest issue in the series "Epochs of Modern History," treats of the period extending from the Peace of Westphalia to the Peace of Nimwegen. As manuals of history these little works have met with a deserved and unprecedented success. With few exceptions the authors have been men of international authority, and in many instances their productions have exhibited marks of pre-eminent historical talent. For the purposes of the general reader, no other method is better adapted to afford the requisite introduction into historical study.

The epoch assigned to Mr. Airy is a period of European history perplexing to the historian. The Peace of Westphalia had reconstructed the foundations of international politics. The era of ecclesiastical government gave way to the dominance of secular and national tendencies. The age of modern diplomacy with its intricacy, secrecy, and exclusiveness began. So that apart from the difficulty which this makes a careful study of details necessary to the proper understanding of the events enacted, the altered character of the movements of society and politics involve a careful and discriminative handling of precedent causes. To those who have studied Mr. Gardiner's excellent and exemplary monograph upon the Thirty Years War,—in the same series,—the latter obstacle is easily surmountable.

Mr. Airy has given a graphic and interesting presentation of the period. The maps are more numerous and fuller than in former numbers of the series.

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## NOTES.

The article of Wheelbarrow upon Henry George and Land-Taxation, has evoked considerable discussion. Critical remarks from our correspondents will appear in the next issue of THE OPEN COURT.

A number of citizens of California, we are informed by Mr. S. P. Putnam, the editor of *Free Thought*, met in San Francisco, on Jan. 27, to form a liberal organization, auxiliary in its action and aim to the American Secular Union. Protest is made against the least interference of State in matters of religion. It is demanded that in the exercise of Federal and State governmental power, no privilege or advantage shall be conceded to Christianity or any other special religion, but that our entire political system shall be founded and administered on a purely secular basis.

At the International Convention of Women held at Washington in March, 1888, a permanent National Council was projected, whose purpose, as expressed in its constitution, is to effect a confederation of the local councils and lesser organizations of women throughout the United States, in the effort "to overthrow all forms of ignorance and injustice, and to apply the golden rule to society, custom, and law. The best good of our homes and nation will be advanced by the greater unity of thought, sympathy, and purpose." The officers of the National Council have issued an Address to all national organizations of women, inviting them to become auxiliary to the Council by formal action. Reports are to be sent to Mrs. May Wright Sewell, Indianapolis, Ind.



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